CHILDREN & AIDS

Compiled by:
PRAYAS
AIDS **N**ETWORKING AND
INFORMATION **C**ENTRE
(ANIC)
AMRITA CLINIC
KARVE ROAD
PUNE-411 004.

589
13/9/96

04223

"Public Tragedy"

The AIDS crisis and its victims, like this, are becoming visible.

from TIME

Community Health Cell
Library and Documentation Unit
BANGALORE

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&
AIDS

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Typeseting, Layout & Printing :

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Sunita Apartments,
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Pune 400 011

013-325.
4223.

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IN THIS BOOKLET

- AIDS & Children : Dangers & Opportunities
- Epidemiology of Vertical Transmission
- Clinical Picture
- HIV Infection in Children
- Diagnosing HIV
- Caring for Children
- Immunization
- Breast Feeding : the Debate
- Infant Feeding & HIV
- Social Aspects of HIV/AIDS in Children
- Management of HIV Infection in Schools.
- Schools & AIDS Education
- On the Brink
- At Risk and Abandoned
- Perspectives

ABOUT THIS EFFORT

- **PRAYAS** is our organization for Initiatives in **Health, Energy, Learning and Parenthood.**
- The Health cell of **PRAYAS** is actively involved for over 5 years, in the fight against the dreaded epidemic of AIDS.
- We started by conducting awareness programs in the community. We have so far conducted more than 400-such kind of meetings in all strata of the society.
- To make our awareness programs more effective we started developing 'visual-aids' in the form of slides, posters, flip charts, booklets, brochures etc. All this material is available with **PRAYAS.** Now we are concentrating on conducting training programs for animators.
- We are now in the process of establishing an **"AIDS Networking and Information Centre (ANIC)."**
- The financial assistance for this project was made available by **"BIKE-AID,"** an USA based organization of **Overseas Development Network (ODN)**
- AIDS is a deadly disease for which there is neither a preventive vaccine nor a drug that can cure. The prevention strategies are based on behaviour modifications. Knowledge is the basis of any change in behaviour. With respect to AIDS - this knowledge has to go beyond the medical issues and has to address the manifold social attributes that contribute to the spread of the epidemic.
- Unfortunately the vast amount of knowledge that is getting accumulated is not reaching the people who have plunged themselves in the preventive programs.

  The establishment of **ANIC** is an attempt to bridge this gap between the people and the knowledge.
- In this first booklet we are presenting articles on various issues concerning **AIDS in the Children.**
- We hope the compilation would provide an overview of the impending problem.
- Ms. Ranjana Sardesai who is looking after the overall management of **ANIC** was ever helpful. Similarly the efforts of Mr. Dhanokar, Mr. Bapat & Mr. Tilak alongwith their staff at Newway Typesetters and Green Graphics are mainly responsible for the timely completion of this booklet.
- Our organization **PRAYAS** is a non-profit organization and this effort is also not for any profit.
- We shall be glad to receive any suggestions regarding this booklet and also regarding any future materials.

Dr. Satish Kulkarni
Dr. Vinay Kulkarni
Dr. Sanjeevanee Kulkarni

June 1996
PRAYAS

AIDS AND CHILDREN
DANGERS AND OPPORTUNITIES

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As the pandemic of human immunodeficiency virus (HIV) infection and AIDS increases worldwide, and as heterosexual transmission increases, the impact of the pandemic on children will inexorably expand and intensify. HIV/AIDS is already a major health problem for children in many areas of the world, and unfortunately, the direct and indirect effects on children will become much more important in the years to come.

Yet AIDS is more than a viral infection : it consistently raises fundamental questions in our personal and social lives, many of which are not new, but arise with unprecedented urgency in the context of HIV/AIDS prevention and care. Therefore, it is not surprising that the upsurge of HIV/AIDS among children has already, and will continue to challenge basic concepts about children.

For these two reasons - the increasing scope of HIV/AIDS among children worldwise, and the deeper meaning of the HIV/AIDS pandemic for childrfen's lives - we believe that those concerned with the health and welfare of children in all countries must be fully informed about HIV/AIDS.

This article starts with an overview of the epidemiological situation worldwide, then focuses on HIV prevention and AIDS care from the viewpoint of the societal challenges arising in the pandemic. As the Chinese character for "Crisis" contains within it the two distinct characters for "danger" and "opportunity". we will also seek to highlight the opportunities for advancing the health, welfare and rights of children which emerge in parallel with the clear dangers of AIDS.

The epidemiological situation worldwide

The global HIV/AIDS epidemic appears to have started in the mid-1970s:

by 1980, an estimated 100,000 people worldwide had become HIV-infected. During the 1980s, the pandemic expanded rapidly, reaching most countries and affecting a total of about 10 million people. By 1 January 1993, approximately 19.5 million people had become infected with HIV worldwide, of whom 18.3 million were adults (10.2 million men and 8.1 million women) and 1.2 million were children. The largest number of HIV - infected people are in sub-Saharan Africa (62 percent of the global total), followed by Southeast Asia (19 percent), Latin America and the Caribbean (8 percent) and North America (7 percent). Overall, nearly 90 percent of HIV-infected people live in the developing world.

The pandemic remains highly dynamic and volatile. HIV continues to spread in every community and country already affected (in the United States, from 120,000 to 240,000 new HIV infections are projected during the next three years) and it is also spreading to new communities and countries. The HIV explosion in Southeast Asia now includes two million Indians, several hundred thousand Burmese and over one-half million Thais. Countries thus far little affected by the pandemic, including China, the Philippines, Indonesia, Bangladesh, Pakistan and Egypt, are likely to experience major HIV/AIDS epidemics in the next decade. Finally, according to the Global AIDS Policy Coalition (an independent research and analysis center based at the Harvard School of Public Health), between 38 and 110 million adults - plus at least 10 million children - will likely have been HIV-infected by the year 2000.

While many people still wrongly consider AIDS a "homosexual disease." hetero-sexual spread (from infected men to women and infected women to men) actually accounts for the large majority (71%) of all HIV infections worldwise. Globally, heterosexual transmission is responsbile for about 90% of HIV infections among women. As of 1 January 1993, 13 million adults had acquired their HIV infections through heterosexual intercourse.

As the pandemic evolves, the role of heterosexual transmission has increased. For example, in the Caribbean, the HIV epidemic in the early 1980s was predominantly homosexual; today, the Caribbean HIV epidemic is dominated by heterosexual transmission. Worldwide, in the late 1980s, the male-to-female ratio of HIV infection was about 2:1; today, it is 1.25:1 and by the year 2000 it will almost certainly be 1:1.

HIV infections in children are closely linked with infections in women of childbearing age, as over 90% of HIV-infected children are exposed to HIV in utero, during childbirth or in the early post-natal period. As of 1

January 1993, 1.2 million children had become HIV infected, of whom the large majority (1 million, or 85 percent of the total) were in sub-Saharan Africa. In addition, over 100,000 HIV-infected children are in Southeast Asia, 55,000 in Latin America and the Caribbean, 15,000 in North America and 8,000 in Europe. Tragically, of these 1.2 million HIV-infected children, two thirds (768,000) have already developed AIDS and at least 90 percent of these children with AIDS have died.

Within just three years (1 January 1996), the number of HIV-infected children will nearly double, to 2.3 million. By 1996, over 2 million children will have developed AIDS, this means that more children will become ill with AIDS during the current three-year period (1993-95) than developed AIDS during the entire history of the pandemic to date. Finally, for each child with AIDS, several children are orphaned by AIDS; the global total of AIDS orphans, now estimated at 2 million, will double to over four million by 1996. According to UNICEF, by the year 2000, from 6-11 percent of the children in 10 central and east African countries will have been orphaned by AIDS.

Prevention of the HIV

In summary, the epidemiological picture of HIV/AIDS in children is grim, for several reasons. First, the pandemic itself is expanding and accelerating worldwide, which increases the global danger, Second, the heterosexual component of the pandemic is increasing and the number of women affected is rising rapidly; the direct and indirect effects of the pandemic on children most closely follow the rates of HIV infection and AIDS among women. Third, progress towards a cure or a preventive vaccine remains slow. Fourth, the global response to AIDS is paradoxically decreasing despite the expanding pandemic, and it is marked by enormous inequity : for example, of the estimated 1.5 billion dollars (US) spent worldwide on HIV prevention in 1991, only 6 percent was for the developing world, where 90 percent of the HIV infections occur. Thus, compared with a per person expenditure of $ 2.70 for HIV prevention in North America in 1991, only $ 0.07 was spent per person in Africa and $ 0.03 per person in Latin America!

Yet beyond the epidemiological estimates and projections, we must try to see clearly the individual and societal realities of this pandemic. For the HIV/AIDS pandemic raises in concrete and specific ways fundamental questions about children, how they are seen by society, and therefore about their rights as human beings.

The Social challenge of the AIDS pandemic

We can see how these issues are raised by considering several specific situations. First, in the context of AIDS, children are considered by many to be "innocent victims", as they have become infected through their mothers. This rhetoric of blame, placing stigma on the mother on whom the child depends is not only wrong, but has had a paradoxical, negative effect on AIDS care for children. While in theory, being considered "innocent" and a "victim" should lead to increased care and support, children with AIDS are too often abandoned. One reason may involve the guilt of the parents, in some ways similar to the anguish which accompanies other chronic, fatal diseases of children. In addition, the parents of children with AIDS may be further stigmatized by the rhetoric of blame. Thus, although children with AIDS may be pitied, adequate resources are not made available for their care. This deprivation is "justified" on the basis of these children's poor prognosis, and is possible because of their lack of economic impact or political power. Thus, despite the high-sounding words AIDS once again reveals the enormous gap between what societies say about their children ("hope of the future", "our most valuable resource") and the realities of how resources are allocated on behalf of children.

The worldwide reality of sexual abuse of children must also be raised. Sexual abuse of girls and boys contributes directly to HIV/AIDS in children yet beyond immediate HIV transmission risks, the loss of socially valued virginity, the sale of children into the expanding market for satisfaction of adult sexual desires, and the devastating and lifelong psychological scarring which accompanies sexual abuse of children all contribute to increasing vulnerability to HIV infection. Sexual abuse in all its forms (from intrafamilial to outright prostitution) is an extremely painful problem, but it must be brought into the light of day.

A third example : to be effective, information and educational programs for HIV prevention must involve the "target population" (the audience) in their design and implementation. Yet programs for children and youth are often prepared and carried out by adults who assume they know what to say and how to deliver the message.

The implicit assumption is that children and youth are not responsible enough to participate actively in prevention programs - they are merely supposed to obey and behave as directed by the adults.

In a similar manner, programs for street children and for AIDS orphans often underestimate these children's capacity to cope and even live

independently, if necessary and critical support is provided. Thinking about orphans from the child's perspective might highlight needs not anticipated by adults, for whom the "placement" of an orphan in a household or an institution risks being seen as the solution. Who speaks for and from the child's viewpoint?

Thus, in many different ways AIDS forces us to realize that society has an often ambivalent attitude about children and childhood: are children people, endowed with full rights as individual human beings, or are they chattel, the property of their parents?

Tragically, the societal inequality of children and the health impacts of this inferior status are magnified by the social inequality of their mothers. The vulnerability of women to HIV infection (and to inadequate AIDS care) is directly related to their role and status in society.

A global analysis of the pandemic and the response leads to a central insight: that societal discrimination (prejudice, stigmatization, inequality and injustice) is at the root of individual and community vulnerability to HIV/AIDS, as well as to other major health problems (injuries, cancers, heart disease, infectious diseases). The threat of AIDS to children's health and welfare is important: we must help prevent infection, and care for children with AIDS, the survivors of families damaged by AIDS, and all others affected by the pandemic. Yet our work must also reach beyond the individual child, household or community, to recognize and respond to the inextricable linkage between the health of children and the human rights and dignity of children. To put this understanding into concrete actions is our challenge: but the historic moment, the course of the HIV/AIDS pandemic and our commitment to children require no less.

> AIDS once again reveals the enormous gap between what societies say about their children and the realities of how resources are allocated on behalf of children.

from International Catholic Child Bureau
- Children Worldwide,
Vol. 20,Ns. 2-3/93.

EPIDEMIOLOGY OF VERTICAL MOTHER-TO-CHILD TRANSMISSION

The number of paediatric cases is rising regularly, as seen in the official statistics.

1. The mechanism of transmission

Transmission may occur during labour and the infant's descent through the genital tract, in contact with the cervico-vaginal secretions and blood, but the possibility of transplacental transmission has been proved. The exceptional observation of a therapeutic abortion in a drug-dependent seropositive young woman showed the virus to be present in specimens of placental lavage fluid as early as the 14th week of pregnancy. Transmission may therefore occur at an extremely early date. The risk of transmission was originally estimated at close to 100%. Present evaluations set it much lower, at about 50%, but information is lacking on the correlation of risk with age of pregnancy. In this context, it should be noted that 3 of the 4 Australian women infested by artificial insemination and who remained seropositive, became pregnant again one year later, and only one of the three children was infested.

The virus is prescent in human milk, but in practice, this type of transmission does not seem to be serious, in the light of present knowledge of transmission of hepatitis B by this route.

2. Vertical transmission in tropical areas

In Nairobi, the prevalence of seropositive pregnant women rose from 0 in 1980-81 to 2% in 1985-86, while the figures for the same period in Kinshasa were 3 and 8%.

A recent survey conducted in Kinshasa, Zaire, shows that 61% of seropositive children have a seropositive mother. This percentage is very similar to that seen in Europe and the USA.

As for the assessment of risk, it was attempted by 2 surveys done in Port au Prince, Haiti and Cayenne, Guyana. The first shows that transmission is not compulsory, since only 35 (6.3%) of 554 Haitian mothers tested were seropositive while only 5 of their 608 children (0.8%) were positive.

In French Guyana, in 1984, 8 women with AIDS who became pregnant totalled four seronegative children aged 13 months to 5 years, one child

with AIDS, another seropositive, one stillborn and two not found and therefore untested.

Also in French Guyana (1985), in 22 seropositive women who had 26 children : 6 of these children had AIDS, 9 were seropositive (but 4 under 9 months old may become negative), 8 were seronegative beyond age 1, one child was stillborn and 1 died of severe lung disease at the age 2 month.

These findings include one case of a woman who had been seropositive for at least 5 years and had a child with AIDS, the clinical manifestations of which only occurred at age 5, A second child born of the same mother, aged 3, is seronegative. Last, two serological negativations were followed up.

This is short series, but one of the very few studied in a tropical area and confirming a percentage of about 50% for occurrence of AIDS. The investigation was pursued, and subsequent percentages remained unchanged.

●●●

Risks in case of pregnancy in a HIV-positive woman

- Transmission of the virus :
  40-60% of cases
  during pregnancy
  during delivery
- Disease in a child
  with the virus : 40% AIDS
  60% : healthy carries
- Aggravation of mother's HIV infection in case of AIDS related complex

"I worry continually what kind of generation we are going to have in my country when children are becoming the heads of household at 12 and 13 years old; when children watch their mum and dad suffer on a day to day basis; when children have to be separated after their parents have died and divided up between the relatives."

(Noerine Kaleeba, TASO, Uganda)

Timing of Vertical Transmission

Intrauterine Transmission	Intrapartum Transmission	Postpartum Transmission
Early onset symptoms (<6 months) - 30%	Later onset symptoms (>12 months) - 70%	Transmission of other retroviruses by breast milk
Neonatal period virus identification (<1 week) -30-50%	Delayed virus identification (≧1 week)-50-70%	HIV isolation from breast milk
? Dysmorphic syndrome	Acute primary infection virologic-immunologic pattern	Transmission of HIV from mothers who became infected postpartum and breast fed their infant
HIV identified in placentas (≧ 8 weeks gestation)	HIV isolation from vaginal-cervical secretions	Possible increased risk of HIV transmission from mothers with established infection who breast fed their infants
HIV identified in amniotic fluid	? Possible decreased risk transmission with cesarean section	
HIV identified in fetal blood specimens		

Factors influencing Mother to Child Virus Transmission

Maternal factors

- Clinical and immunologic status
- Site of persistent Virus expression
- Level and duration of viremia
- Virus-specific immune response

Viral factors

- Virus phenotype
- Virus genotype

Placental factors

- Placental cell susceptibility to virus infection
- Developmental stage of placenta
- Integrity of placenta

Fetal factors

- Gestational age at time of virus exposure
- Fetal immune response
- Fetal cell susceptibility to viral infection
- Genetic factors (e.g., HLA type)

Obstetrical factors

- Skin and mucus membrane integrity
- Neonatal immune response
- Gastrointestinal maturity

Breast milk factors

- Level and duration of virolactia
- Nonspecific antiviral defenses
- Virus-specific local immunity

CLINICAL PICTURE

Paediatric AIDS

1. Neonates with seropositive mothers are generally born at term and with normal measurements. Clinical stigma of HIV infection are only rarely observed at birth. There is no embryofoetopathy, in the strict sense of the term, although Rubinstein has occasionally observed what he considers characteristic facial anomalies at birth (long phyltrum, thick lips, hypertelorism bulging forehead). These anomalies differ from those seen in the foetal alcoholic syndrome. They have only been described by this team, however, and their actual existence remains questionable.

2. Symptoms occur between ages 2 and 18 months, with an average age of 6 months. Hepatosplenomegalia and lymphadenopathies are common but variable.

Infections often involve common germs (staphylococci, streptococci, enterobacteria) or opportunist germs, the latter being of the same types usually described in adults, with the exception of infection with the Calmette-Guerin bacteria (BCG) in children vaccinated before a diagnosis was made. Candidiases, pneumocystoses and CMV infections are some of the most frequent ailments.

Lymphoid interstitial pneumopathy is much more frequent in children than in adults. Its aetiology is still debated : it is linked with the EBV virus or a direct response to the presence of the HIV virus in the pulmonary alveolar cells? Its usual association with moderate immunodeficiency is indicative of a good prognosis, but it occasionally progresses towards chronic respiratory insufficiency with hippocratic fingers. Diagnosis is based on histology and above all on broncho-alveolar lavage, which often suffices when severe hyperlymphocytosis (>40%) is evidenced. The main complication is intercurrent pneumococcal infection, which may be avoided or attenuated by routine treatment with oral penicillin and/or IV gamma globulin. Corticosteroid therapy ocasionally produces spectacular clinical and radiological improvement. The protocol for such treatment is not accurately defined as yet. Large doses are recommended at first (1.5 to 2 mg/kg) for 2 to 3 weeks, followed by a relatively rapid decrease over a 1 to 2-month period, with maintenance doses taken every other day.

Encephalopathy is the main complication of HIV infections in children. The prevailing symptom is pyramidal hypertonicity, which is often severe.

This may be accompanied by retardation followed by regression of psychomotor acquisitions. Buccofacial dyspraxia is often observed. The type of evolution is quite variable. Some children move rapidly to severe encephalopathy while others show more discrete symptoms, often dominated by this buccofacial dyspraxia. The type of evolution seems to be closely correlated with the intensity of the immune deficiency. Scanner results may be normal or show signs of cortical atrophy. Calcifications of the basal ganglia may develop subsequently.

CSF is usually normal but intrathecal antibody secretion may occasionally be evidenced. The easiest way of demonstrating viral replication in the central nervous system at present is the detection of P25 antigen in the CSF.

3. As for paediatric AIDS in tropical areas, it has received little study so far. In Kinshasa, acute diarrhoea with acute or chronic dehydration and with or without malnutrition represents one of the most frequent symptoms. Similarly, repeated respiratory infections and otitis seem to be frequent. The clinical pattern is apparently identical in Haiti, with a great many seropositive children recruited in the oral rehydration room for cases of acute diarrhoea with dehydration at the main hospital in port au Prince. On the whole, 20% of children in both the under 9-month and over 9 month age group with acute diarrhoea are seropositive. Similarly, 36% of undernourished children over 9 months old are also infested.

The clinical picture of infantile AIDS is actually difficult to define, since the infection is evidenced by a nonspecific pathology. This makes serological proof an absolute necessity in ascertaining diagnosis of the infection, as opposed to adult cases, in which the clinical AIDS picture generally suffices, and the diagnosis may be made at first glance. This remains true even if the CDC paediatric definition is replaced by the one recommended by the WHO workshop in Bangui. The low specificity of the various signs makes their predictive value mediocre, as shown by a recent attempt to estimate the sensitivity (35%) specificity (87%) and predictive value of positive serology (25%) in 159 children studied in Kinshasa. Only 21 (13%) of these children were actually seropositive.

The frequency of paediatric AIDS in tropical areas remains relatively low, and the risk of contributing to a severe progression by vaccinating seropositive children remains purely theoretical. EPI vaccination programmes should therefore be maintained unchanged at the most, administration of the BCG-and of yellow fever vaccination when included in the EPI - may be avoided in some urban areas where overall

Most significant clinical signs and laboratory evidence in childhood AIDS, in approximate order of frequency

Clinical sign	Frequency	Laboratory
Growth disorders	100%	Positive anti-HIV antibodies
Hepatosplenomegalia		Anaemia
Systemic lymphadenopathy		T4/T8 ratio
Recurrent bouts of fever		Lymphocyte stimulation
Recurrent diarrhoea		Anergy on skin tests
Chronic interstitial Pneumonia		
Mucocutaneous candidiasis		IgG/IgM
Encephalopathy		b_2 microglobulin
Recurrent bacterial septicaemia		Circulating immune
Eczema-like eruption	50%	complexes
Chronically swollen parotid		Thrombocytopenia
		Lymphocytopenia
Embryopathy (Dysmorphic syndrome)		
Infections with opportunistic germs :		
P. carinii (lungs)		
CMV (lungs, central nervous system, stomach, intestine)		
HSV (mucosa, skin, lungs, disseminated)		
Candida (disseminated)		
Toxoplasma (central nervous system, lungs)	10%	

P. carinii = Pneumocystis carinii; CMV = cytomegalovirus ;
HSV = Herpes simplex virus; HIV = Human Immunodeficiency Virus
Source : S.Blanche

prevalance is high.

4. Generally speaking, immunization raises many problems, which may be summarised as follows :

Some infections (tuberculosis and measles) have serious consequences in the immuno compromised, and vaccinal protection is desirable, but is it effective in such cases and how safe is it (is there a risk of severe, disseminated vaccinal disease when live viral vaccines are administered)?

further, is there a risk that lymphocyte stimulation by the vaccine may awaken a dormant pro-virus and precipitate the evolution of HIV infection?

It may now be asserted that injectable (inactivated) antipoliomyelitis vaccine and the diphtheria and tetanus toxoids may safely be used. Some complications have been observed with the BCG (3 fatal, disseminated forms) and the smallpox vaccine. (1 disseminated form) No major complication has occurred among several dozen European, American or Haitian children given the DTPolio or measles vaccine. Their antibody titres were slightly lower than in seronegative children, but protective nontheless. Immunization with measles and injectable DTPolio vaccines is advisable in individuals with no major immune disorder. If the child is already immunocompromised, the measles vaccine should be avoided. The BCG should be excluded in all cases.

5. Immunological anomalies are much the same as in adults. The relative drop in CD_4 + lymphocytes is oftern masked by lymphocytic hyperplasia. Plasmocytosis is practically constant. Biological parameters predictive of progression are still debated. Some workers consider the quality of the cell-mediated immune response to a specific antigen (candidine, tetanus toxoid) a good indicator of immunodeficiency, consistently correlates with a poor outcome. Other authors questions this, and suggest a stratification based on the absolute number of CD4 lymphocytes, as in adults. In any case, all agree that the infection is very serious : few children remain asymptomatic for long periods, and about 50% of infected children develop a severe form within 3 years, while the future of the others cannot be predicted for lack of knowledge of the potential for progression.

CDC Classification System for HIV in Children

Class P-O. Indeterminate Infection

Infants < 15 months born to infected mothers but without definitive evidence of HIV infection or AIDS

Class P-1. ASYMPTOMATIC INFECTION

Subclass A. Normal immue function

Subclass B. Abnormal immune function

Hypergammaglobulinemia, T4 lymphopenia, decreased T4-to-T8 ratio, or absolute lymphopenia

Subclass C. Immune function not tested

Class P- 2. SYMPTOMATIC INFECTION

Subclass A. Nonspecific findings (at least two for >2 months)

Fever, failure to thrive, generalized lymphadenopathy, hepatomegaly, splenomegaly, enlarged parotid glands, persistent or recurrent diarrhea.

Subclass B. Progressive neurologic disease

Loss of developmental milestones or intellectual ability, impaired brain growth, or progressive symmetrical motor deficits

Subclass C. Lymphoid interstitial pneumonitis

Subclass D. Secondary infectious diseases

Category D-1. Opportunistic infections in CDC case definition

Bacterial : mycobacterial infection (noncutaneous, extrapulmonary, or disseminated);

nocardiosis

Fungal : candidiasis (esophageal, bronchial, or pulmonary), coccidioidomycosis, disseminated histoplasmosis, extrapulmonary cryptococcosis

Parasitic : P. carinii pneumonia, disseminated toxoplasmosis with onset > 1 month of age, chronic crytosporidiosis or isosporiasis, extraintestinal strongyloidiasis

Viral : Cytomegalovirus disease (onset >1 month of age), chronic mucocutaneous/disseminated herpes (onset >1 month age), progressive multifical leukoencephalopathy

Category D-2. Unexplained, recurrent, serious bacterial infections (two or more in 2 years)

Category D-3. Other infectious diseases

Includes persistent oral candidiasis, recurrent herpes stomatitis (at least two episodes in 1 year), multidermatomal or disseminated herpes zoster.

Subclass E. Secondary Cancers

Category E-1. Cancers in AIDS case definition

Kaposi's sarcoma, B cell non-Hodgkin's lymphoma, or primary lymphoma of brain

Category E-2. Other malignancies possibly associated with HIV

Subclass F. Other malignancies possibly associated with HIV

Includes hepatitis, cardiopathy, nephropathy, hematologic disorders, dermatologic diseases

6. It is not always easy to diagnose the infection in infants :

- maternal antibodies (essentially anti-gp 110 antibodies) may persist fo 12-13 months. Testing for specific anti-HIV IgM still encounters specificity problems and is not performed routinely;

- use of monoclonal antibodies in p25 antigen assay is practically always negative at birth, Study of the gradual modification of the anti-HIV antibody profile using the Western Blot during the first months of life may be valuable if it shows the acquisition of antibodies not present at birth:

- isolation of the virus in the cord blood is still the only reliable means of early diagnosis, but such testing is difficult, in practice, and there is still a strong possibility of false negative results.

●●●

HIV Infection in Children

Karina M. Butler, Philip A. Pizzo

Of the many diseases and infections that can cause serious morbidity in children, infection with the human immunodeficiency virus (HIV) stands apart. It is among the most relentless of infections. Unlike the situation with childhood cancer, where one member of a family is ill, we routinely encounter entire families who are infected - infected parnets who know that their children will be deprived of parents too soon, uninfected children who must cope with the tragedy of watching family members die, and families for whom the pain and suffering directly associated with infections are increased by the added burdens of secrecy and fear. Today, management issues encompass not only those pertaining to primary antiretroviral therapy and to the treatment and prophylaxis of secondary infections, but also the issues of improved psychosocial and community - based support for the family. In undertaking the management of children with HIV infection, emphasis must shift from the treatment of an acute or subacute illness to the management of a chronic condition. In designing therapeutic strategies, the family unit must be considered and, where possible, care of parents and children coordinated so that access to care can be optimized.

Of the 2,963 cases of AIDS in children reported to the Centers for Disease Control (CDC) by March 31, 1991, 84% resulted from mother to infant transmission of infection (also referred to as perinatal or vertical transmission) and 391 cases (14%) developed following transfusion of contaminated blood or blood products. Other less common modes of transmission to children include child sexual abuse24 and, rarely, breast-feeding.

Additionally, 670 cases in adolescents have been reported to the CDC. In adolescents the predominant mode of transmission has been through the transfusion of contaminated blood or blood products; howeve, homosexual or bisexual contact accounts for about 30% of adolescent cases, particularly in the older age groups. As in adults, IV drug use and heterosexual transmission of infection are the other important categories of transmission in this age group. The male-female ratio is correspondingly lower in infected adolescents than in adults 3:1 versus 9:1. The higher percentage of females among infected adolescents further amplifies the problem. These are individuals at greatest risk of

Table

Diagnosis of HIV-1 infection in children under 15 months old

- Passively transmitted maternal antibodies may persist for 15 months.
- Diagnosis of infection in neonates:
  - isolation of the virus
  - detection of antigen
  - serology : } cord blood
    - * IgM?
    - * comparative WBs on sequential sera

- Children in the Tropics,
Edt. International Children's centre, Paris. 1980-No. 172

What can we expect in the coming years as far child mortality caused by HIV infection is concerned? Dr. Peter Kok has designed a model to calculate incidence, i.e.; the number of new infections in a given year, which would be more or less equal to the number of children who will die from AIDS in the first 18 months; it is higher in the United States and Europe, lower in Africa and Asia. It is possible to calculate the incidence for a given town, region or country. This brings out the grim perspectives for the future of children living in a world in which the behaviour of adults so directly and devastatingly influences millions of children.

Child mortality due to AIDS will increase in two ways. Firstly, the direct effect on the infant of the virus obtained from its mother by vertical transmission (varying from 15-45%) and secondly, from the excess mortality due to diminishing care during the period of illness of its parents and once the child has become an orphan.

becoming single teenage mothers and transmitting the infection to their infants, and who are least able to cope with taking care of an HIV infected infant. As a group, adolescents, with their inherent sense of invulnerability are least likely to modify their behaviour in response to concerns of infection. It is alarming that a good factual knowledge of HIV infection is unlikely to alter the sexual behaviour of hemophiliac adolescents.27 This underscores the need for aggresive preventative intervention in this population.

Definition of AIDS in children

The AIDS case definition, as originally configured, required the presence of one or more of a number of highly specified opportunistic infections and malignancies, definitively diagnosed, which reliably reflected profound cellular immunodeficiency and for which no other cause could be established. The development of culture and serodiagnostic techniques for the identification of HIV infection resulted in modification of the initial reporting criteria in 1985 and in 1987. Emphasis is now placed on HIV testing as a component of the diagnostic process, and in the setting of confirmed HIV infection, a presumptive diagnosis of certain conditions is acceptable. This modification also takes into account that period of an infant's life, 0 to 15 months, when testing may not yield definitive results, and recognizes the importance of recurrent bacterial infections and lymphocytic interstitual pneumonitis as indicator conditions in children. Thus, establishing a diagnosis AIDS, which represents only part of the spectrum HIV infection, requires documentation of specific AIDS defining illnesses according to CDC guidelines. Though it is useful epidemiologically to determine whether a patient has AIDS, awareness of the full spectrum of HIV associated illness is important for patient care. The CDC has also developed a definition and classification system covering the full spectrum of pediatric HIV infection. P-O represents indeterminate infection in children, usually less than 15 months old, in whom infection has neither been conclusively established or excluded. Children in the P1 category have documented infection, are asymptomatic, and are classified based on immunologic parameters. Children with P2 disease have documented infection and signs and symptoms of infection. Many of the conditions in the P2 classification are AIDS indicator conditions, and the classifications further subdivided as P2B, P2C, P2D1, P2D2 and P2/E1 reflecting those conditions, but not all manifestations of symptomtatic HIV infection are included in the AIDS defining conditions.

The CDC classification system is used both in Europe and the United

States. In developing countries where diagnostic facilities may be minimal, a case definition based on clinical findings in used. It is recommended that, wherever possible, the definition based on clinical findings be used in conjunction with serologic testing to avoid overdiagnosing HIV infection.

Clinical Manifestations

Onset of Clinical Symptoms

Although many HIV associated conditions are common to infected children and adults (Table), there are important differences in the rate of disease progression and in the incidence of some conditions. Among adults and young hemophiliacs, an inverse relationship between age at seroconversion and subseqauent time to onset of clinical symptoms, with a longer incubation period for those infected at a younger age, has been demonstrated. In one study, young hemophiliacs with low CD4 counts were less likely to progress to AIDS than older hemophiliacs with similar CD4 counts.103 In contrast, in children infected by vertical transmission the incubation period is shorter and disease progresses more rapidly. When this group of perinatally infected children is further analyzed, the onset of symptomatic disease appears to occur in a bimodal fashion. Children who become symptomatic before 1 year of age frequently develop opportunistic infections and have HIV related encephalopathy. In this group, opportunistic infection, which manifests at a median patient age of 5 to 7 months, is strongly correlated with the presence of severe encephalopathy, which usually manifests at 9 to 15 months. This pattern of disease presentation is associated with rapid progression and early mortality. In contrast, children who do not develop opportunistic infection or severe encephalopathy during this period follow a less rapid decline and are significantly more likely to survive beyond 5 years of age. The development of lymphocytic interstitual pneumonitis or recurrent bacterial infections as the primary manifestation of HIV infection is associated with a better prognosis than is the development of opportunistic infection or encephalopathy. The long-term prognosis for children who are less symptomatic during the early years of life is just unfolding. Although disease eventually appears to progress in most children within 5 years, in a few anecdotal cases perinatally infected children have remained symptom free for up to 10 years. The heterogenicity in both symptom expression and in time to onset of symptoms remains to be explained. Genetic factors, viral strains, cofactors, or timing of transmission of infection (early in pregnancy or during labor and delivery) may all contribute to this diversity.

One further important distinction between vertically infected children and adults has been noted. Whereas the development of serious opportunistic infection is associated with CD4 counts of less than 200 cells/mm3 in adults, children with counts manyfold higher developed Pneumocystis carinii pneumonia. Recognition of the importance of age-specific changes in CD4 counts among young children reminds us to be aware of the importance of age-related changes and their potential impact on the manifestations and course of infection in children.

GENERAL MANIFESTATIONS OF INFECTION

The initial manifestations of disease may be subtle and insidious - failure to thrive, lymphadenopathy, slowly progressive organomegaly, an increased incidence of common infections (otitis, sinusitis, pneumonia) - or dramatic; the development of an unusual infection such as P. carinii pneumonia. Symptomatic acute infection with a mononucleosis - like syndrome is rarely if every recognised in children. Common clinical features include malaise, fevers, lymphadenopathy (which may often regress in later stages of disease), hepatosplenomegaly, respiratory tract infections, chronic persistent or recurrent diarrhea, failure to thrive, and persistent mucocutaneous candidiasis. A variety of nonspecific cutaneous manifestations have also been described, including seborrheic dermatitis and eczematoid eruptions.

Mother to Child Transmission : Interest in supporting research to interrupt perinatal transmission of HIV has arisen in the light of an interim analysis of a phase III randomised, placebo-controlled trial, conducted in USA and France, which indicated that zidovudine (AZT) reduced transmission by almost two-thirds. However, the drug regimen evaluated was too costly and logistically difficult for use in most developing countries.

"AIDS orphans provide a window on the picture of social and economic breakdown threatening populations penetrated by the AIDS virus."

Susan Hunter, UNICEF Consultant

Signs and Symptoms of HIV Infection

Organ System Affected	Signs and Symptoms
General	Fever, malaise, failure to thrive, lymphadenopathy
Respiratory	Otitis, sinusitis, lymphocytic interstitial pneumonitis; pneumonias; bacterial, viral (CMV), protozoal (PCP) and fungal (Candida spp., C neoformans)
Cardiovascular	Cardiomyopathy, Pericarditis, arrhythmias, arteritis
Gastrointestinal	Anorexia, nausea, diarrhea, wasting, parotitis, oropharyngeal candidiasis, oral hairy leukoplakia, aphthous ulceration, gingivitis, HSV stomatitis, esophagitis (candidal, CMV, HSV) hepatitis, cholecystitis, pancreatitis, enteropathy, colitis (bacterial, viral, protozoal, fungal)
Renal	Nephrotic symdrome, acute nephritis, renal tubural dysfunction
Hematopioetic	Anemia, leukopenia, thrombocytopenia
Endocrime	Short stature, adrenal insufficiency
Central nervous	Loss of developmental milestones, impaired cognitive ability, acuired microcephaly, spastic paraparesis, extrapyramidal tract signs, aseptic meningitis
Ocular	Chorioretinitis (CMV, HSV, VZV, toxoplasmosis), cotton wool spots
Locomotor	Peripheral neuropathy, myopathy
Skin	Infectious : bacterial (S. aureus); viral (HSV, VZV, M. contagiosum, warts); fungal (Candida spp., tinea corporis, tinea capitis, Malassezia spp.); infestations (scabies) Inflammatory : seborrheic, eczematoid, and psoriatic eruptions, drug eruptions
Recurrent bacterial infections	Sites : Otitis, sinusitis, pneumonia, meningitis, osteomyelitis, bacteremia, urinary tract, cellulitis, bacterial colitis. Common organisms : S. pneumoniae, H. influenzea, N. meningitides, Salmonella spp., atypical mycobacteria
Malignancy	Lymphoma, Kaposi's sarcoma, leiomyoma, others.

From : AIDS : Etiology Diagnosis, Treatment & Prevention. Edt. Devita, Hellman, Rosenbery; JB Lippincott)

DIAGNOSING HIV

For a child diagnosed with HIV or AIDS, good care and support help to improve length and quality of life.

A small number of infants with HIV survive frequent infections as an infant, then become healthier, living for over six years. However, globally about four in every ten infants with HIV do not live more than 12 months, and over half die by the age of two, most commonly from dehydration, pneumonia, tuberculosis and malnutrition. Good care and support can increase length and quality of life.

Even if the mother has HIV, her child's illnesses may not be due to the virus. Malnutrition, malaria and anaemia can be similar to HIV symptoms especially if the baby is not breastfed. Congenital syphillis can also resemble HIV infection, with swollen glands and skin rashes.

Diagnosis dilemmas

Health workers need to weigh up the value and disadvantages of diagnosing HIV in a baby or child. HIV can be diagnosed by laboratory testing and/or on the basis of clinical signs (see "Recognition of symptoms" box).

Diagnosis on the basis of clinical signs is less accurate than HIV testing.

However, clinical diagnosis is often used because laboratory testing is expensive and often unavailable. Also, for children under 18 months a positive HIV-antibody test is not reliable. All babies whose mothers have HIV are born with their mother's antibodies, which remain until 12-18 months. If a child is infected with HIV, his or her own antibodies cannot be detected until after this time.

The main advantage of diagnosing HIV in a child is that opportunistic infections such as pneumonia can be identified and treated quickly, and health workers can detect at an early stage childhood infections which are potentially serious, such as persistent diarrhoea.

However, treatment of childhood illnesses is almost always the same whether or not a child has HIV. If a health worker suspects that illnesses are related to HIV, the child should receive close monitoring, good nutrition and appropriate immunisation. It is important to explain to the family that the child will not necessarily die early and that with good care and early treatment of illnesses he or she can survive for a long time.

HIV infection in a child often means that the mother, and her sexual partner, may have HIV, but be unaware of the fact. Health workers need to consider the implications of the child's diagnosis for the parents. Whatever the diagnosis method used, the mother (and with her permission, other family members) need counselling, care and support. The mother may prefer not a know either her own HIV status or that of her child.

Older children who may have HIV need special consideration. They may be coping with illness in the family or the distress of sexual abuse as well as the issue of their HIV status.

Common symptoms

Birth to six months

A few babies with HIV are small at birth and do not thrive. At around three or four months, most develop symptoms such as severe bacterial infections or rashes, and meningitis) swollen lymph glands: enlarged liver and spleen: failure to thrive; and fungal infections, especially persistent oral thrush.

Six to fifteen months

In children with HIV, growth faltering, often with illnesses like malaria, diarhoea or ear infections, is common. Growth faltering can be detected by recording changes in weight and length on the child's growth chart. Recent studies suggest that stunting (reduced rate of growth) occurs earlier than wasting (weight loss) in HIV-infected babies. Persistent diarrhoea, when a child has liquid stools (three or more daily) for 14 days or more, and respiratory infections may be frequent. Treatment with standard antibiotics is often unsuccessful.

Tuberculosis is more difficult to diagnose in children than in adults and can produce different symptoms, such as fever without a cough, or swollen glands in the neck and shoulders. A child with a cough for more than one month, recurrent bouts of fever, poor weight, should be suspected to have TB and treated appropriately.

Over fifteen months

Common symptoms in HIV-infected children include: any conditions listed above: a general itchy rash: swollen glands around the jaw or in other parts of the body: and chronic cough. Some children are slow to develop skills such as walking and talking.

Key points for care

Most HIV-related illness is caused by common infections which can be prevented or treated at home or a health centre. However, they often last longer than in HIV-negative children and are more difficult to cure with standard treatments.

- Maintain good nutrition. This includes giving advice on both breastfeeding and other feeding, including feeding a child with poor appetite.
- Treat common childhood infections as early as possible.
- Immunise as usual, except for babies with advanced clinical HIV symptoms, who should not be given tuberculosis vaccine (BCG).
- Emphasise early diagnosis and treatment of suspected TB for all family members (including babies unless HIV illness is suspected.)
- Give oral rehydration therapy (ORT) to prevent dehydration during diarrhoea. Antibiotics for other infections can worsen diarrhoea.
- Monitor growth regularly.
- Treat the child as normal, ensuring for example that he or she plays with other children.
- Give comfort when in pain and distress, and relieve pain, with aspirin for example.

Drs. Dennis Tindyebwa and Lawrence Marum, Makerere University Medical school, PO Box 7072, Kampala, Uganda.

"It is fashionable to give money for training counsellors. No-one will give money for hospital care. Yet we are flooded with people terribly sick from AIDS who need our help. What are we to do?"

Ursula Sharpe, Uganda

Recognition of symptomatic HIV infection in Children

WHO has developed guidelines for recognising HIV infection in children. These may be used where a health worker suspects HIV infection and where testing is not available or affordable, or where the child is too young for the test to be accurate. These guidelines may be helpful for clinical management of the child and to alert the health worker to possible needs of the mother for counselling and care.

A diagnosis of symptomatic HIV infection is made if the following are present:

- any **cardinal** finding
- two or more **characteristic** findings
- one characteristic finding plus two or more **associated** findings
- three or more associated findings plus any **epidemiological risk factors**
- two associated findings plus **laboratory evidence of HIV** infection in the child.

Cardinal findings

- pneumocystis carinii pneumonia (PCP)
- lymphoid interstitial pneumonitis (an unusual form of viral pneumonia)
- fungal infection in throat and mouth (candidiasis or thrush)
- Kaposi sarcoma (skin cancer, rare in children)

Characteristic findings

- recurrent bacterial and/or viral infections (such as respiratory and skin infections and meningitis)
- tuberculosis, of the lung or of other organs
- shingles (herpes zoster)
- cytomegalovirus infection
- neurological problems, such as slowness in developing skills in sitting, crawlling and talking, fits, microcephaly (reduced head growth)

Associated findings

- oral thrush when the child is not being treated with antibiotics.
- failure to thrive (lack of weight gain)
- fever (continuous or intermittent for more than 1 month)
- diarrhoea (persistent or intermittent for more than 14 days)
- generalized lymphadenopathy (swollen lymph glands)
- skin rashes

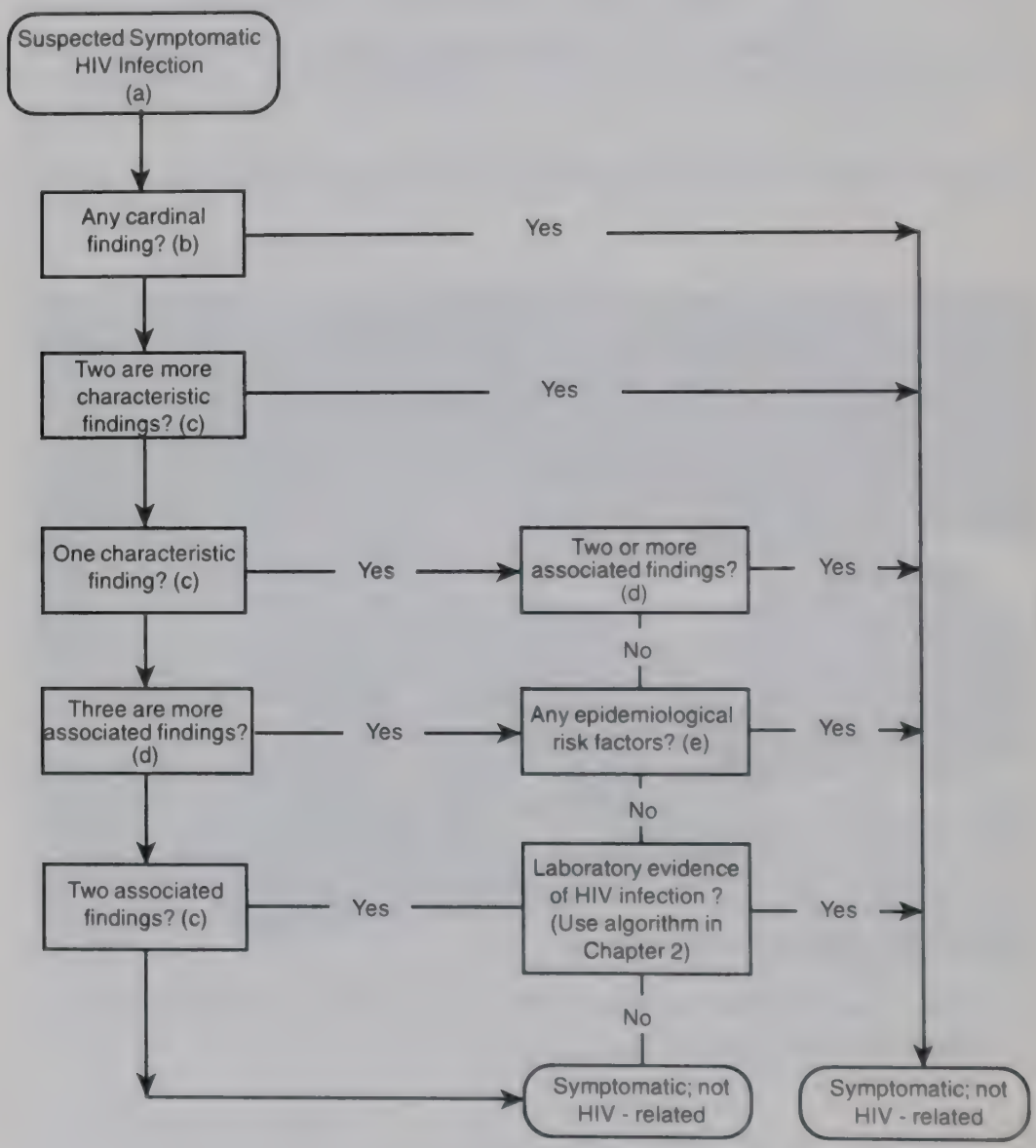
Epidemiological risk factors

- mother has tested positive for HIV
- history of transfusion of unscreened blood or blood products
- sexual abuse involving penetrative sexual intercourse
- use of contaminated syringes and needles or a history of scarification, ear piercing or circumcision using non-sterile instruments.

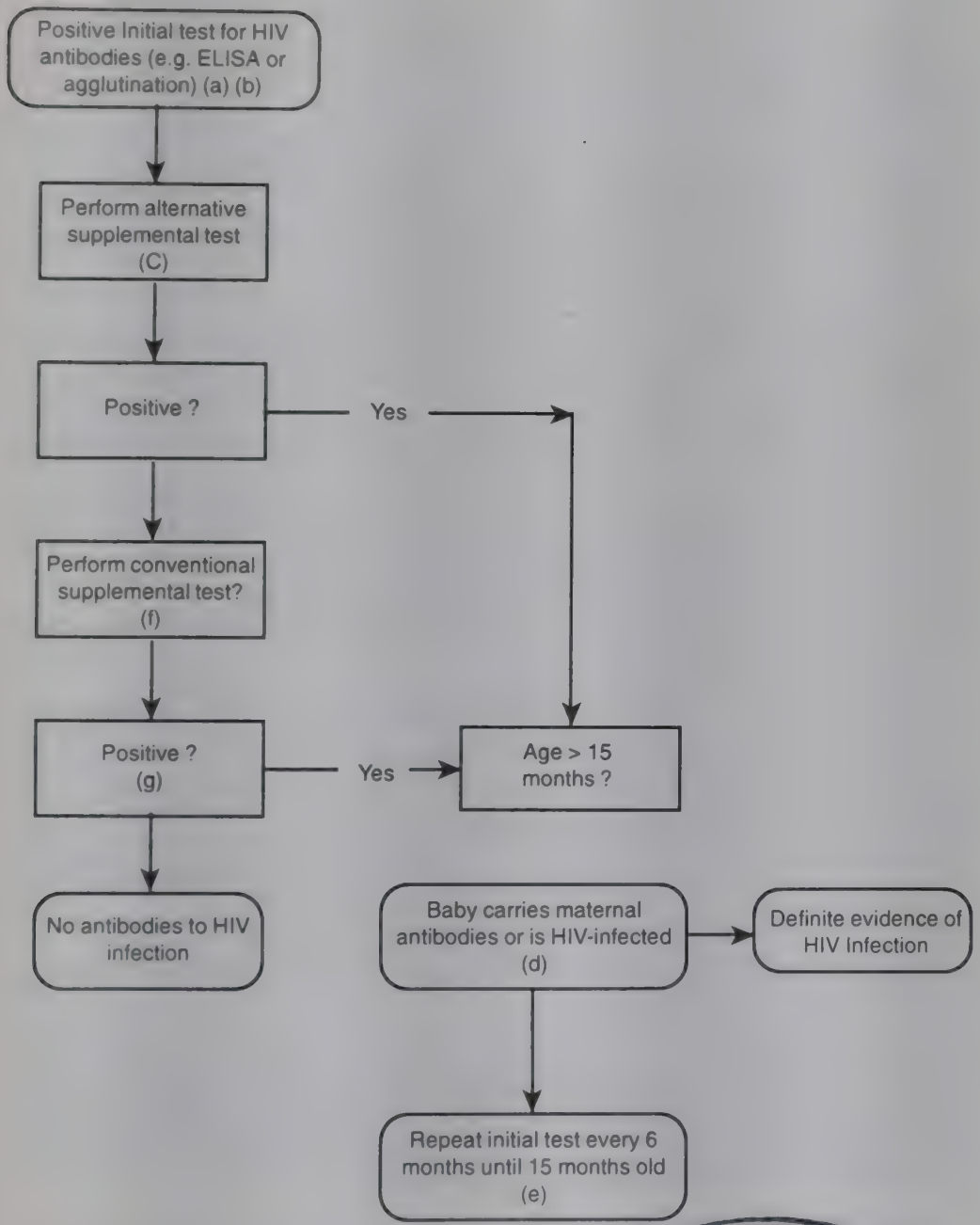
from : AIDS ACTION, ISSUE 27, APRIL-JUNE 1995.

A Zambian woman and her child, both infected with HIV, lie together in a hospital bed.

Recognition of Sympnmatic HIV Infection



Laboratory Evidence of HIV Infection


Positive Initial test for HIV antibodies (e.g. ELISA or agglutination) (a) (b)
Perform alternative supplemental test (C)
Positive ?
Yes
Perform conventional supplemental test? (f)
Positive ? (g)
Yes
Age > 15 months ?
No antibodies to HIV infection
Baby carries maternal antibodies or is HIV-infected (d)
Definite evidence of HIV Infection
Repeat initial test every 6 months until 15 months old (e)

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Annotations :

a. WHO has published recommendations for the selection and use of HIV antibody tests (Wkly epidem rev 1992 : 20 : 145-9). The most common HIV antibody testing strategy for establishing seropositivity involves an initial test on a serum or plasma specimen. Specimens found reactive by the initial test are subjected to a supplemental test (sometimes referred to as a confirmatory test). The tests and the sequence in which they are used should be evaluated under field conditions in the region where they are to be used prior to implementation.

   It is important to take into consideration relevant clinical and epidemiological information when reporting laboratory results.

b. Enzyme-linked immunosorbent assays (ELISAs) and particle agglutination are widely used as initial tests.

c. The alternative supplemental test should preferably be of a different test principle (indirect versus competitive) and/or use different antigen preparations (viral lysate versus recombinant polypeptides or synthetic polypeptides) to the initial test in order to minimize the occurrence of false positive results. Studies have shown that certain ELISAs and simple/rapid tests (e.g. immunodot and particle agglutination tests) are suitable alternative supplemental tests.

d. A positive antibody test in an infant under 15 months of age may mean one of two things :

   i) the baby is carrying maternal HIV antibiotics (i.e. persistence of maternal IgG antibodies following placental transfer); or
   ii) the baby is HIV infected and will continue to test positive.

   The likelihoood that a child is infected with HIV is greatly increased if one or more HIV - related clinical symptoms and/or biological abnormalities (CD4 < 400, or hypergamma-globulinemia) are present. Hypogammaglobulinaemia is the first immune abnormality occurring in newborns.

e. Repeat testing every 6 months until the child is 15 months old, by which time any circulating maternal antibodies should have disappeared and the HIV test will become negative. If the test continues to give a positive result the child is infected with HIV.

   The following tests are presently under investigation to confirm HIV infection in children under the age of 15 months.

- detection of IgA antibodies (which do not cross the placenta)
- viral detection using the polymerase chain reaction (PCR) either by the standard technique or with dried blood spot specimens
- in-vitro antibody production assays
- p24 antigen assays.

Preliminary data show these tests to have a high specificity and sensitivity.

CHILD PROSTITUTION : "A Crime against Humanity"

This publication by Jubilee Action, an independent, interdenominational British charity that carries out aid and awareness programmes for the oppressed worldwide tell us :

- Every year an estimated 1 million children worldwide are lured and forced into child prostitution. The report goes on to say that globally, as many as 10 million children could be enslaved in child prostitution, the sex industry, sex tourism and pornography, although no accurate statistics are available.

- Child prostitution tends to be higher in Asia and Latin America. However, an alarming growth has been recorded in Africa, North America and Europe, with Eastern Europe emerging as a new market in the sexual exploitation of children. Countries listed include Bangladesh, Belgium, Brazil, Burkina Faso, Burma, Cambodia, Canada, China, Colombia, Cote d-Ivoire, Czech Republic, Ethiopia, France, Germany, Ghana, Guatemala, India, Indonesia, Japan, Laos, Malaysia, Mauritania, Middle East, Mozambique, Nepal, Netherlands, Norway, Pakistan, Philippines, Poland, Rumania, Russia, Sri Lanka, Sweden, Switzerland, Taiwan, Thailand, United Kingdom, US, Vietnam, Zaire.

In the context of the HIV pandemic many of these children will be at risk of infection as are women who are forced into the sex industry.

CARING FOR CHILDREN

The World Health Organisation (WHO) estimates that over one million children are infected with HIV world-wide. Infants can be infected with HIV during pregnancy, birth or breast feeding. More children can be infected by contaminated blood products or non-sterile equipment, or through sexual abuse involving vaginal or anal penetrative sex.

More than half the children with HIV infection in developing countries die before they are 12 months old. However they can live beyond their first year with good preventive health care and a supportive environment.

The lives of many more children who do not have HIV themselves are affected when family members have AIDS. Families face increased poverty and stress because adults have to leave their paid employment or are too sick to farm their land. Women may be ill themselves, as well as caring for other sick family members and looking after young children. Girls in particular often become carers for sick relatives and younger brothers and sisters. Sometimes children have to leave school and look for the work.

WHO estimates that more than five million children will have lost their mother or both parents to AIDS by the year 2000. Grand parents, aunts and uncles care for the orphaned children and may be unable to meet costs of extra food and school fees. After their parents deaths, children can lose their rights to the family land or house. Without education, work skills or family support, children may end up living on the streets. These children are especially vulnerable, often becoming sexually active at an early age and at risk of HIV.

Challenges

AIDS programmes need to address the needs of children, as well as adults. by :

- continuing to stress prevention by promoting safer sex, ensuring blood safety and avoiding unnecessary blood transfusions.
- providing accessible health care for women and children.
- supporting children and other family members who are caring for sick relatives
- ensuring that older children receive sex education, and the means ot prevent infection

- caring for increasing numbers of children without parents, and elderly people who can no longer depend on their grown-up children.

from : AIDS ACTION, April, June 1995.

"Even angels will not come when the government will not talk about the problem. I appeal to some governments to come out openly and express the problem."

Moses Ddombo, World Vision, Uganda.

'In all affected countries the numbers of orphans and damaged childhoods are rapidly increasing, and the phenomenon will develop crisis proportions in coming years"

"To call on an orphanage remains a last resort. The orphan child once there is uprooted and made anonymous. Social and psychological problems there are more numerous than in extended natural families."

Dr. Thomas Kabeja, National University of Rwanda.

"Problems have been encountered while dealing with children affected by AIDS. Children's homes are not prepared to take them in; potential foster parents are fearful of infection."

Jane Mwangi, Children's Officer, Kenya

IMMUNISATION

The advatages of immunisation are obvious if protection against serious infection can be achieved. The questions applicable to all immunisations are :

1. Do they work?
2. Are live vaccines safe?

Data on efficacy of vaccines in HIV-infected children are lacking but several studies suggest many of the commonly-used vaccines have adequate immunogencity during the asymptomatic stage. Similarly, data on the safety of live vaccinations are sparse, but studies which have been performed have not demonstrated increased incidence of adverse effects in HIV-infected children. Therefore, in the UK normal immunisation schedule for children is also recommended for HIV-infected children. Some clinicians, however, on theoretical grounds, recommend substituting the oral polio vaccine with killed intramuscular polio vaccination to avoid the possibility that after passage through the vaccine, a pathogenic mutant polio virus is transmitted to another immunocompromised family member. It must be stressed that at present this remains a theoretical concern. Although there are no efficacy data, some clinicians also recommend vaccination with pneumococcal vaccine. BCG vaccination poses particularly difficult problems through lack of sufficient data in this population. A well-recognised presentation of other immunodeficiency syndromes in childhood is disseminated BCG following vaccination. Isolated case reports of disseminated BCG in HIV-infected adults and children have appeared in the literature, but some large studies conducted in sub-Saharan Africa have shown no increase in adverse reactions to BCG in the HIV infected pediatric population. Additionally, the increasing incidence of tuberculosis in some populations and the uncertainty of the effectiveness of BCG in immunocompetent (let alone immunocompromised) persons make it very difficult to issue confident advice on BCG vaccination policy. The World Health Organization advice is that in countries where the risk of TB is high. HIV-infected children should be given BCG at birth, while BCG should be withheld from children with symptomatic disease. In the light of the currently available data this seems appropriate.

Breastfeeding : the debate

Geneva : Incontestable facts about breastfeeding and HIV transmission will not be available for many years. In May, in an attempt to clarify current information, WHO/UNICEF held a consultation meeting and subsequently issued their Consensus Statement on HIV and Breastfeeding which concludes that continued promotion of breastfeeding is the appropriate response.

Reasons for the shortage of satisfactory data are twofold : there is a huge diversity among groups studied, and it is hard to determine just when infection from mother to baby occurs. About a third of babies born to mothers with HIV become infected. Is HIV transmitted during pregnancy, delivery, or breastfeeding ? It is almost impossible to know. Babies of HIV positive mothers are born with their mothers' antibodies and only after about a year is it possible to determine whether the child has developed HIV.

There seems to be a disparity of risk between women who have become infected with HIV after the birth of the babies and women who already have HIV when they give birth. A recent review of research concludes that first group are at greater risk than the second.

The first group includes women who received HIV-infected blood transfusion just after giving birth as well as those infected within a few months of giving birth, usually through sexual intercourse. These women seem to be at higher risk of transmitting the virus to their babies through breastfeeding, perhaps because HIV is very active in the body immediately after infection.

Research from Rwanda has indicated a possible risk of transmission through breastfeeding by newly-infected mothers. The researchers followed 212 mothers who were apparently seronegative at the time of the birth of their babies. Sixteen mothers and nine babies became HIV positive. The researchers concluded that in four cases breastmilk was the most likely route of transmission. But a mystery remains. If breastmilk is highly infectious, why did seven babies in the Rwanda study stay healthy ?

Researchers are often careless about defining breastfeeding; exclusive breastfeeding is ideal but rare. Mothers may say they are exclusively breastfeeding but sometimes give extra water or herbal teas. Many

mothers and health workers mistakenly consider this practice to be harmless.

Among its many anti-infective properties, breastmilk contains immunoglobulin A (IgA) which protectively "paints" the gut wall to stop viruses and other harmful micro-organisms crossing through. Artificial milk, weaning foods, water, other fluids, and even dummies interfere with breast-feeding and may prevent nutrient absorption or inhibit the effect of IgA and other protective factors in breastmilk. Contaminated food or fluids may give the baby an infection, making the gut wall more vulnerable.

The problem with any study of breastfeeding and HIV is that variables such as exclusivity and feed supplements are rarely recorded or taken into consideration. For example, Rwandan women are reported to breastfeed exclusively, but the timing of the introduction of weaning foods was not recorded in this study.

The picture is even more cloudy when looking at the second group of women who have an established HIV infection before the birth of their child. Researchers from the European Collaborative Study (ECS) found that 31% of babies breastfed by their HIV positive mothers developed their own HIV infection whereas only 14% of bottle-fed babies did so.

The ECS figures should be regarded with caution because the study included a very large number of bottle-feeders and comparatively few breastfeeders. The factor which may be most crucial in determining whether breastfeeding is safe or not — the level of HIV infectivity in the mothers — was never measured. Nor was exclusivity of breastfeeding recorded in the study; in many European hospitals early feeds of glucose water or artificial milk are still common.

If breastfeeding were as infectious as HIV-contaminated blood transfusions, there would be 100% infection in the infants of HIV positive mothers who breastfeed. But this is not happening. In contrast to semen or blood in needles —where a few drop may transmit HIV — breastmilk is a body fluid delivered in substantial amounts (up to a litre a day for many months) and yet the majority of babies breastfed by mothers with HIV remain infection-free. One significant and under-reported discovery which may provide an explanation for this phenomenon is that all breast-milk, irrespective of the mother's HIV status, contains a unique substance which prevents the virus from attaching itself to cells.

In their Consensus Statement on HIV and Breastfeeding, WHO/UNICEF acknowledge that the simplistic division between "developed" and "developing" countries is inappropriate and instead use the term "settings" to describe the range of conditions of poverty and wealth around the world. They suggest that if an alternative feeding method is possible then a mother known to be HIV positive may be advised to use it, but if this is going to risk illness and death from infectious diseases then breastfeeding is advised.

The reality is that in areas of high HIV prevalence most women do not know their HIV status. Because the choice of alternative method or product must not be influenced by commercial pressures, the Consensus Statement demands baby food companies abide by the WHO/UNICEF Code of Marketing of Breastmilk Substitutes.

Amidst the confusion about the risks of HIV transmission through breastfeeding one fact is clear : if breastfeeding stopped today, the results would be far more devasting than the current effects of HIV. There would be a vast increase in infant illness and deaths : **UNICEF calculates that a child deprived of breastfeeding in the developing world is 25 times more likely to die.** Moreover, there would be a huge rise in pregnancies : worldwide, more births are prevented by breastfeeding than by all other forms of contraception put together.

Gabrielle Palmer

from: World AIDS, Nov 1992

Risks versus benefits

HIV can be passed from a mother to an infant during pregnancy,

childbirth or breastfeeding. However, worldwide the majority (two thirds) of infants born to mothers with HIV do not become infected with the virus.

It is also important to remember that most babies breastfed by mothers who are infected with HIV do not become infected through breastmilk. However, the virus has been found in the breastmilk of women with HIV.

Breastfeeding when the mother has HIV infection, or drinking infected breastmilk (donated and unscreened/babies but it is not known by how much. It is not easy to find out if a baby has HIV infection until he or she is between 12 and 18 months old. It is therefore difficult to show that a baby has been infected during breastfeeding, rather than in the womb or during birth.

Some factors are known to increase the risk of transmission during breastfeeding. If the woman has only been recently infected or if she has AIDS-related illnesses, she may have more virus in her body fluids, including breastmilk. The risk to the baby is greater if the mother is :

* infected with HIV through blood transfusions during or shortly after childbirth; or
* infected during unsafe sex with an infected partner when pregnant or breastfeeding; or
* afflicted with AIDS-related illnesses during pregnancy or breastfeeding.

Breastfeeding benefits

* Breastmilk is the most nutritious food for babies, and is very easily digested. For the first 4-6 months, an infant needs breastmilk, and no other food or liquids.
* Breastfeeding helps to prevent common infections, and reduces the risk of death because :

- breastmilk contains substances that protect infants against infection;

- it is hygienic and avoids babies being exposed to unsafe water and food.

* Breastmilk is thought to contain a substance that helps to protect babies against HIV.

* Exclusive breastfeeding is an important method of child spacing, because it helps to delay return of fertility.

Weighing up pros and cons

Health experts are worried that women may be wrongly advised, or decide themselves, not to breastfeed because of fear of HIV. Breastfeeding is one of the most important ways that a mother can help her infant stay healthy. Infants who are not breastfed are up to 14 times more likely to die of commonly childhood illnesses than exclusively breastfed infants, especially in low income communities.

Health workers should continue to strongly promote breastfeeding. This is especially important in places where infectious diseases and malnutrition are the main cause of infant deaths, and where poor hygiene and lack of money mean that it is difficult to find safe alternatives to breastmilk.

For many HIV-positive women, the risk of their babies dying if not breastfed will be much greater than the risk of passing on HIV. Where the risk of artificial feeding can be minimised, individual HIV-positive women should have access to counselling to help them decide whether or not to breastfeed, and be supported in safe use of alternative methods.

Advice to all women (whether or not they know their HIV status)

Health workers should discuss breastfeeding and its benefits with all pregnant women. It is also important to talk about HIV and STDs and how to prevent them. Women (and their partners) need to know that having safer sex, or abstaining from intercourse, are important during pregnancy and breastfeeding. If the woman wishes, talk with her sexual partner as well. Make sure that the couple has access to condoms, and knows how to use them.

If a woman's HIV status is unknown

Most women do not know their HIV status, and in many places are probably not infected with HIV. They should be encouraged and supported to breastfeed.

A woman may be more likely to be HIV-positive if she has illnesses or

symptoms often associated with AIDS, of if her sexual partner is HIV-positive or has an AIDS-related illness. In most communities HIV counselling and testing services are not available. However, if such a service is available, a woman may want counselling about the HIV test.

Good counselling is essential, because it helps a woman to consider if she has been at risk of infection, prepare for finding out her HIV status, and to decide whether to have a test, without pressure. Knowing her status may help her make the decision about whether or not to breastfeed, as well as affecting other choices about her life.

The risk of infection before or during pregnancy, or during breast-feeding should never be used as a reason to persuade a woman to have an HIV test, or to carry out a test without her consent. Testing without counselling and informed consent is not ethical.

If a woman is HIV-positive

Health workers should discuss the implications of being HIV-positive, and help a woman to make an informed choice. Find out what the woman already knows about HIV infection and breastfeeding, clarify any misunderstandings, and explain the possible risks and benefits. Reassure her that, whatever choice she makes, she is not to blame if her baby becomes ill.

It is important to help the woman to decide if the chance of passing HIV to her baby via breastfeeding is greater than the risks associated with artificial feeding. She needs to be able to assess whether her circumstances allow her to use other feeding methods safely.

However, alternatives may not be easily available or a woman may decide that the benefits of breastfeeding outweigh the possible risk of transmission of HIV. Some women are deciding to breastfeed at first, but to stop if they become ill.

Issues to consider include :

* What does the woman feel about the risk - would she worry and feel guilty about possible infection, or would she prefer to give her child (and herself) all other benefits of breastfeeding ?
* Is she afraid of being asked difficult questions about why she is not breastfeeding, and of losing confidentiality about her HIV status.
* Does she have a good support network to help her prepare and give alternative feeds ?

* Can she easily obtain affordable animal or formula milk ?

* Does she have access to clean water ? Can she afford fuel or electricity for sterilising feeding utensils ? Decisions about infant feeding affect the whole family, and joint counselling with other family members may be helpful if the woman agrees. Whether breastfeeding or not, women need support and advice to help them care for themselves and their babies in the best possible way.

Nicoll A and colleagues, Feb 1995.

Infant feeding policy and practice in the presence of HIV-I infection. AIDS, vol. 9, no. 2, pp. 107-121.

WHO 1994. HIV and infant-feeding : essential issues for decision makers (draft policy guidelines)

Alternatives to breastfeeding

Alternative infant feeding methods require access to a plentiful and clean supply of water to reduce risk of diseases such as diarrhoea. If a baby is not being breastfed, a clean cup or spoon should be used since bottles and teats are difficult to clean.

Infant formula is the most common alternative. However, it is expensive, and hygienic preparation and feeding can be difficult in many households. To feed an infant for the first six months, 44 tins of 500 g are needed.

Animal milk such as cow or buffalo milk, can also be given. It should be diluted and sweetened (one cup of water, three cups of milk, four level teaspoonfuls of sugar) and brought to a boil to reduce the amount of curd and kill harmful germs.

Breastmilk can be expressed by the mother and made safe for the infant by heating it to boiling point or by pasteurising it - heating to 62.5 C for 30 minutes. In some places, self-help groups for HIV-positive women, or support from health workers, have succeeded in enabling mothers to express and treat their milk. Continuing to express enough breastmilk over a long period may be difficult. Supplementing expressed breastmilk with formula milk and introducing solid foods earlier than usual should be considered.

In some places it may be acceptable for another woman to breast-feed the baby. This option is not advised where this woman might be, or become, HIV-positive herself.

Social Aspects of HIV/AIDS and Children

Dorothy Blake, Deputy Director,
Global Programme on AIDS. The who, Genewa, Switzerland.

By mid-1993, the World Health Organization estimated that some 14 million HIV infections had occured cumulatively since the beginning of the epidemic. Of these 14 million infections 1 million or more have occurred in children.

In the vast majority of cases, these children were born to mothers infected with HIV, as transmission may occur in utero, or during or after birth (including breast feeding). Blood transfusion is a relatively infrequent and diminishing mode of transmission in children. But in certain countries sexual transmission in adolescents over 14 years (particularly girls) is increasingly being documented. Heterosexual transmission accounts for 75-80% of all transmission worldwise. Most of these infections have occurred in the developing world. Africa alone, with over 8 million infections and where transmission is almost always heterosexual, accounts for more than three quarters of HIV infection in children.

The social determinants and consequences of HIV in children are therefore related to HIV occurence in adults, in mothers in particular, as well as to the role and status of children in society.

Developing countries are the most touched

With regard to social determinants, a striking feature of the AIDS epidemic is its more rapid increase in developing countries than in developed countries. Preexisting conditions which favour HIV/AIDS spread are : high levels of other sexually transmitted diseases, high levels of unprotected sex, shared needles among drug users, low educational levels, infrequent contact with health and social services, the low level of development of these services, denial and complacency concerning the magnitude and seriousness of the epidemic. Underlying all, poverty is a major contextual factor for HIV transmission. Poor communities not only have less access to information concerning HIV/AIDS, but are so caught up in the daily struggle for life at the most basic and essential level (food, water, shelter), that actions for HIV prevention rank low in the vital priorities.

Women are particularly vulnerable. Poverty in women is linked to and compounded by their low social/economic status in society and their burden of child rearing and family caring. To these social factors must be added the fact that HIV transmission is easier from male to female than vice versa. It is not surprising then that women, particularly young

women in reproducive age, represent a group in which transmission is occurring fastest, nor that, as a consequence HIV infection in children is increasing. Therefore the rate of HIV transmission in children will increase in the foreseeable future. As AIDS is a fatal disease, on average 1 in 5 to 1 in 3 children born to an HIV positive parent will be infected, will develop AIDS, and die by their fifth year. The remaining uninfected children will have to grow up as orphans.

10 millions orphans by the year 2000

Indeed, a major social consequence of the epidemic is the large and growing number of AIDS orphans. It is expected that by the year 2000 there will be 10 million orphans worldwide, mainly in developing countries. For instance, in two districts in Tanzania, 65% of those orphaned of both parents are "AIDS Orphans". A child that has lost his/her mother or parents and is not attached to a caring adult is several times more vulnerable to childhood diseases, malnutrition and the psychological consequences of dysharmonious development. AIDS orphans, in addition to psychological and emotional distress of seeing their mother/parents die, are often forced to interrupt school education and look after the remaining family. These children, who are unprepared for the role they must assume, are likely to be abused and rejected and many will respond to these pressures and responsbilities by trying their luck in the cities, where they are likely to join the growing numbers of street children.

There is an increase in direct HIV transmission in children fuelled largely by the parallel phenomenon of the growing number of street children who live and work in the streets because of poverty, abandonment, and absence of a caring environment. Street children are very early sexually active, and in many cases enter into male or female prostitution for survival or by force.

In some countries, girls are sold by their parents or relatives early into prostitution, often in illegal circuits where prevention programmes are difficult. Men with multiple partners go for younger and younger girls on the belief that they are free from HIV. Girls are sexually abused or enticed into "Sugar-daddy" relationships in exchange for meals or little presents.

The cost of HIV infections, AIDS or orphan status children is inestimabel in terms of death, suffering and dysfunctional development. The cost to society includes increased demands on social welfare services, and more indirectly, the impact on overall development. As the epidemic impacts on infant and child mortality the favourable trend in these parameters seen over the last decade will decline. It is clear that strategies are needed that will focus, first of all, on prevention. This is the only weapon humanity has at present to avoid the negative human

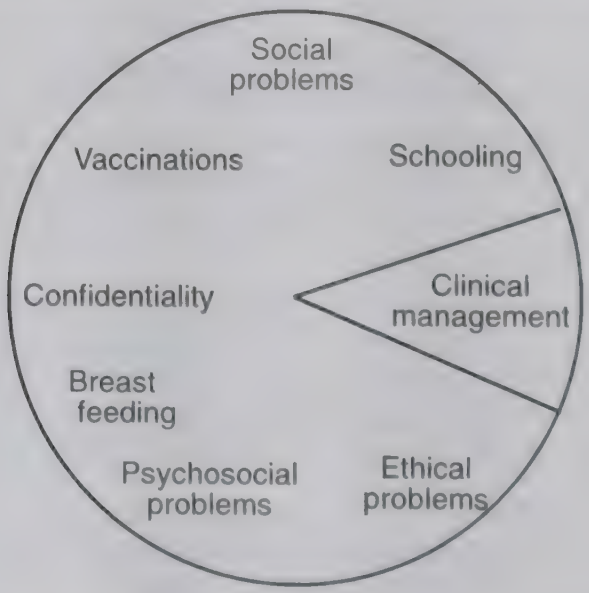
and social consequences of HIV/AIDS which will take generations to recover from, at a devastating human cost.

from : Children Worldwide, ICCB, Vol. 20,No.2-3/93

At the time of the downfall of Ceaucescu, more than half the European children with AIDS were Romanian. If the number of children infected by contaminated blood or syringes has greatly decreased, those of children born to HIV-positive mothers continues to increase, in order to avoid the children being placed in an institution, Case Speranta offers a family-type alternative with which the local Romanian community is associated.

"In urban areas it is now the nuclear family; "my wife, my children", no longer ``my uncles, my village". Extended family support is breaking down."

Liz Mataka, Family Health Trust, Zambia.



Management of HIV infection in children. A multi-disciplinary apprach should be adopted when caring for HIV-infected children. The child's problems extend into many areas and the clinical management represents only a small part of the care which should be provided.

Management of HIV Infection in Schools

1. Risk Evaluation

1.1 HIV infection has caused much public anxiety because it is an incurable disease and is discovered only very recently.

1.2. HIV infection is transmitted through sexual contact, contaminated blood and needles, and perinatally from an infected mother to her baby. It cannot be contracted through common social situations like schooling nor at work.

1.3 As a blood-borne disease, infection through occupational exposure has occurred in the health setting at an estimated risk of 0.4%, which is much lower than the figures of 6 to 30% for Hepatitis B infection. Such exposure are predominantly needle-stick (hollow-needles) injuries affecting the health-care workers.

1.4 In the school setting, the risk of HIV transmission through exposure to blood is extremely low, and no cases have been documented so far.

1.5 The best way of further minimizing the already minimal risk of HIV transmission in school is to adhere to universal precautionary measures irrespective of a person's HIV status. The same procedures would also reduce the risk of HBV transmission.

2 Recommended Policy in Schools

2.1 HIV-infected pupils, teachers or other staff in schools should be allowed to continue with their normal activities, which in the case of pupils, implies normal schooling. Special arrangement would only be made if medical advice is sought, as recommended by and in consultation with a medical practitioner.

2.2 The HIV status of a pupil (or any person) should be kept in strictest confidence. School heads and teachers knowing of the identity of an HIV-positive pupil should not disclose such information to others. Even in cases where disclosure is considered necessary by medical or other professionals for the benefit of the child, this should be done with the consent of the parents, and strictly on a "need to know" basis. In some cases, parents may choose to disclose the information to the class masters/mistresses and the school social workers in view of specific psychological need. A sympathetic attitude should be fostered among all persons concern, and again with all data kept confidential.

2.3 School heads should ensure that all precautionary measures have been taken. The concept of universal precaution and procedures are sufficient to significantly minimize the risk of HIV transmission in the school setting. In general, no special precautionary measures are necessary even if a certain pupil is known to be HIV-infected.

2.4 The general concept of universal precaution should be promoted with the primary objective of achieving good personal hygiene and environmental health, instead of just emphasising on disease prevention. Teachers and pupils should be familiar with all precautions that should be taken to minimise the risk of HIV-infection.

2.5 Special arrangement for HIV-infected pupils (e.g. special schools and private tutorship) may be made on ground of the health condition of the pupils or their need for more individual attention instead of their HIV status.

2.6 Special arrangement for HIV-infected pupils with behavioural problems may be necessary to protect them and their schoolmates from injuries which may lead to their exposure to blood-borne diseases. Again, this should be considered in terms of the pupils' behaviour rather than their HIV status. Advice from the Education Department and other professionals (such as psychologists or medical practitioners) may be sought for such circumstances.

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SCHOOLS AND AIDS EDUCATION

1. Why carry out AIDS education ?

In a relatively short period of just over ten years, AIDS has become a global epidemic - or "pandemic" - threatening large segments of the population in both developed and developing parts of the world. In the second decade of the pandemic, there is still no validated cure or vaccine effective against HIV infection or AIDS. Despite several promising lines of research, and the hope that effective vaccines or drugs will soon be available, education remains the main weapon in the fight against the HIV/AIDS pandemic.

Moreover, even if a vaccine or drug becomes available in the near future, there is no guarantee that the large majority of people threatened by HIV infection or already suffering from its consequences in developing countries will be able to benefit from it. New drugs developed by Western pharmaceutical companies are expensive and may remain beyond the reach of people from developing countries for a long time. Experience with other health matters such as infant vaccination and treatment of diarrhoea provided ample evidence that the existence, or even relatively inexpensive supply, of medical products is not sufficient to ensure their wide adoption and correct use in many developing countries.

Furthermore, because of the particular nature of HIV and its main routes of transmission, there has been a considerable amount of public anxiety and misconception. The classification of HIV as a sexually transmitted disease, and its early association with homosexual men, drug injectors, and women engaged in commercial sex, have made AIDS an extremely sensitive issue, conducive to the development of negative stereotypes, prejudices and discrimination. The long incubation period of HIV, and the debilitating and ultimately fatal diseases caused by the destruction of the body's immune system, have tended to reinforce such negative public attitudes. These in turn have led to the spread of rumors about the potential (and even deliberate) spread of HIV infection by already infected individuals or their relatives and associates through casual contacts. Thus, fighting against these false rumors and the "second epidemic" of fear, prejudice, and discrimination provoked by them has emerged as another important goal of AIDS education.

The objective of this aspect of AIDS education is to allay unjustified fears and create social support for - and solidarity with - people who are already known to be HIV-infected, as well as with groups whose lifestyles and/or social reputation make them an easy target for HIV infection and the social stigma associated with it.

2. Different forms and targets of AIDS education

AIDS education can take a variety of forms, ranging from formal curriculum-based teaching to public information, education, and communication campaigns using a variety of mass media. Similarly, the audiences or targets group of AIDS education can vary from well-defined age groups (e.g. children, adolescents and young adults), through groups engaging in known high-risk behaviour in specific situations (e.g. female prostitutes, long-distance lorry drivers, health workers), to, more diffuse groups within the community.

Young people as a group are universally regarded as an important target audience for all educational activities aimed at promoting healthy attitudes and behaviour or at changing unhealthy attitudes and practices and thus forestalling their unwanted consequences. This view is based on two basic assumptions strongly supported by both common sense and pedagogical theory and research. The first assumption is that children and young people are naturally flexible beings going through the process of social, emotional and intellectual growth and thus are much more likely to learn and change than adults who have adopted more fixed ideas and habits. The second assumption is that healthy attitudes, behaviour and skills learned at an early age will not only protect young people against socially unacceptable influences but will do so with more force and for a much longer period of time than attitudes acquired at later stages of their development and life.

3. Why do young people need AIDS/STD education ?

Although young people below the age of 20 account for a relatively small proportion of registered AIDS cases in most countries, there are a number of reasons for considering them as a high-risk group for HIV infection, AIDS and other sexually transmitted diseases (STDs). On the other hand, the number of youngsters among the diagnosed AIDS cases is already considerable in many developing countries where HIV is primarily transmitted through

heterosexual intercourse. The figures are particularly high for young girls. In addition, seroprevalence surveys carried out in different countries indicate that the rates of HIV infection among adolescents aged between 12 and 19 years is rising. Again, the rates are particularly high among young girls in developing countries where HIV is primarily transmitted through heterosexual intercourse. Moreover, in most countries the highest rates of HIV infection and AIDS are known to occur among young people aged 20 to 29 years. Because of the long delay between initial HIV infection and the onset of symptoms, it is believed that many of these people may have contracted the virus during an earlier period of their life, particularly during their teenage years.

These findings are not surprising in view of the fact that the main behavioural practices associated with HIV infection and AIDS, that is sexual intercourse and drug injection, usually occur for the first time during this period of life. Epidemiological surveys carried out in different parts of the world indicate that every larger proportions of young men and women become sexually active at increasingly earlier ages and outside socially sanctioned, legal unions. Youngsters engaging in such sexual explorations often lack the information and cognitive skills needed to appreciate and realistically appraise the risks inherent in such behaviour. Nor have they attained the emotional maturity and social and interpersonal skills that may enable them to resist pressures to engage in such high-rish interactions. In the case of young girls in many developing countries, these early sexual encounters and experiences often involve older, richer, and generally more powerful, men — the so-called "sugar daddies". Such unequal relations make it all but impossible for relatively powerless young women to resist pressures or to negotiate for relatively safer sexual practices even if they know what the latter are. In fact, because of strong social, cultural and religious sensitivities surrounding sexual behaviour and contraception, many young people are unlikely to be aware of safer sex strategies (in particular, the use of condoms) or of the importance of such strategies in protecting themselves against HIV infection.

Many young people also begin experimenting with alcoholic drinks and other drugs at about the same age that they start sexual activity. The use of such drugs (particularly alcohol) is often regarded as a sign of adulthood and a requisite for acceptance by peer groups. The association between drug (including alcohol) use and

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engagement in highly dangerous and unplanned sexual interactions by adolescents is well documented. Such drugs make risky and unintended sexual intercourse more likely because they increase sexual desire while lowering the ability to appraise risk and resist pressure.

4. Why do schools need to get involved in AIDS/STD education?

A major characteristic of human development is the tendency to become increasingly independent of the family as the basic socialization unit and to seek sources of help, support, guidance and reinforcement outside it. This tendency is particularly strong during adolescence, when young men and women develop a strong interest in joining peer groups outside the family unit and adopt their values and norms in preference to those of their family. This process of adolescent rebellion has been observed in most human societies. In almost all societies there is a conflict between adolescents or youth, on the one hand, and parents and other adults who, while encouraging their growing children to stand on their own feet and become independent, complain about the tendency to go too far in that direction and to mould attitudes, beliefs and behavioural styles on the norms and values of peer groups. With the rapid urbanization and modernization of social structures which have characterized most human societies during this century, the tendency of young people to follow outside peer groups and norms has become much more obvious.

The expansion of school systems which require children and young people to spend long periods of their waking hours away from home, and with peers who may belong to quite different cultural backgrounds, has further widened the gap in mutual expectations and preferences between traditional family systems and the growing individuals. Contemporary school systems tend to represent and promote modern attitudes, beliefs and lifestyles rather than those of parents (who in many cases are illiterate) or of the traditional society, further undermining the authority of parents and their ability to control and shape the behaviour of their offspring. As a result, many families have left the main responsibility for the education and socialization of their children to schools and teachers.

Moreover, taboos universally associated with sexual behaviour usually make it extremely difficult - if not impossible - for parents to discuss sexual activity, and the risks associated with it, with their

growing children. Most parents would rather leave this responsibility to teachers and/or other adults whom they believe to be in a better position to deal with such sensitive issues. Unfortunately, teachers and school systems are often not prepared for this task and are hampered by similar sensitivities.

One commonly held belief is that sex education may encourage young people to experiment prematurely with sex. In fact, all the evidence points to the contrary : sex education leads to more responsible behaviour in adolescents, and reduces the exposure to risk, either by delaying the initiation of intercourse or by increasing the use of protective measures among the sexually active. Sex education has been found to be more effective when given to adolescents before they become sexually active, and when it emphasizes skills and social norms rather than knowledge.

Even when school accepts some responsibility for sex education, for example in "family life" or "population education" programmes, they often address the less controversial biomedical facts and focus on the physiology of reproduction. Such factual information, though necessary and useful, can hardly protect the sexually motivated, psychologically naive, and socioeconomically powerless youngsters against the pressures to engage in high-risk sexual interactions frequently exerted by their classmates, peer groups outside school, or adults looking for young and uninfected sex partners.

The importance of school systems for AIDS education is further underlined by the wide availability of schools and their immense potential as sources of information and influence. Even in the least developed parts of the world, huge numbers of children and young people can be relatively easily reached through formal school systems. In fact no other social institution - including churches and families - can rival schools in reaching large numbers of children and adolescents under the same roof on a regular basis. Moreover, schools are usually highly prestigious institutions and teachers are generally regarded as highly reliable sources of information in almost contemporary societies. The influence of teachers can be further reinforced in almost all contemporary societies. The influence of teachers can be further reinforced by combining it with collective support from other students, parents and community leaders. Such a collective effort spearheaded by teachers can go a long way in creating and maintaining health-promoting norms and practices, including safer sex.

Schools, as important social institutions, are also an immensely important vehicle for disseminating AIDS-related information in the surrounding community and mobilizing community-wide support for the adoption and maintenance of safer sex norms, for the promotion of desired behaviour changes, and for other initiatives in the prevention of AIDS and STDs. In most developing countries where literacy is not widespread, not only teachers but also relatively literate children are often looked to as reliable sources of information and guidance on matters of health and education. Thus, by educating and mobilizing teachers and students against AIDS, national AIDS programmes can avail themselves of key human resources for reaching wide segments of the population with correct information and appropriate role models. This potential of schools may be particularly important for reaching and educating out-of-school young people who account for a major proportion of the young men and women in most developing countries, and whose socioeconomic status and lack of access to sources of information and social support put them at high risk of engaging in behaviour associated with transmission of AIDS and other STDs.

While there may be a variety of specifically designed and targeted educational channels for reaching such out-of-school young people, they can and should also be considered as an important target group for public AIDS/STD education activities initiated by schools.

5. The kind of education needed

For education to be really effective in meeting the challenge of the HIV/AIDS pandemic, and the health and social problems associated with it, a drastically new approach would seem to be essential. From past experience with school-based programmes to prevent unwanted pregnancies and STDs among youngsters, there is ample evidence that the traditional emphasis on imparting factual information by teachers to a largely passive audience of students is unlikely to bring about the desired changes in attitudes and behaviour. Presentation of basic facts on the physiology of sex and reproduction, even if desirable in its own right, has not been found to be particularly helpful either in motivating young people to change their behaviour or in helping them to take the necessary preventive action when faced with a risky, real-life situation. Information on AIDS and STDs, even when properly memorized, is unlikely to automatically translate into effective preventive action. Situations associated with high-risk behaviours that lead to HIV infection and

AIDS are of complex, interpersonal nature. To avoid or successfully negotiate such situations requires certain motivations, attitudes and skills, as well as supportive social environment. These are hardly achievable through the traditional health education programmes which primarily aim to imparting information.

For AIDS/STD education efforts to succeed in bringing about the desired outcomes, they should aim at :

* acquisition by students of correct information on major aspects of HIV/AIDS
* rectifying incorrect beliefs and misgivings regarding various aspects of the syndrome and those it directly affects
* creating an appropriate degree of concern and motivation
* developing the skills needed to avoid high-risk situations and/ or to negotiate for low-risk behavioural alternatives.
* providing accurate information on condoms and other means of protection against AIDS/STDs.
* making condoms and other means of AIDS prevention both available and culturally acceptable.
* creating a psychologically safe and accepting environment that will encourage young people to express their fears and preoccupations regarding AIDS and the social relationships which could lead to HIV infection.
* providing young people in general - and socially vulnerable young people at high risk in particular - with appropriate role models and a network of social support that can help them to resist pressures to engage in behaviour that carries a high risk of infection.

In order to achieve these aims, school-based AIDS/STD education programmes need to meet certain criteria :

1. The teachers involved should be well trained and motivated and possess the necessary communication and teaching skills to prevent basic facts on HIV/AIDS and STDs, as well as on sex and other socially censured behaviour leading to their transmission. The teachers should be given sufficient training in interactive methods of teaching to enable them to encourage their students to express their concerns, fears and prejudices,

and to acquire the skills needed for protection.

2. The approach adopted should be characterized by a frank and honest acknowledgement of the increasingly earlier manifestation of sexual activity by young people, and of the fact that such activity is not limited to the traditional confines of socially sanctioned, mutually faithful relationships.

3. Activities should be directed towards promoting behaviour that prevents the transmission of HIV and the spread of other STDs : continued abstinence for those who are not sexually active, and safer sex - including non-penetrative sex and protected sexual intercourse - for those who are. This overall goal consists of a number of subgoals, so that students completing a programme of AIDS/STD education should :

   * understand the nature and models of transmission of HIV and of other STD agents.

   * recognize the symptoms of HIV infection, AIDS and STD and know where to find appropriate resources for counselling and medical care.

   * be able to make informed decisions about personal and social behaviour that reduces the risk of HIV/STD transmission.

   * be capable of rejecting biased information and myths relating to HIV infection, AIDS and STD.

   * show solidarity towards people infected with HIV, or who have AIDS or other STDs, for example, by respecting their right to privacy and confidentiality and by recognizing the benefits of the continued participation of HIV-infected students and staff in the school community.

4. School health education objectives established to meet these goals should focus on the knowledge, attitudes, skills, and support that students need in order to avoid becoming infected with HIV or other STD agents. The precise nature of such objectives will depend on the values and needs of the community. The objectives require an explicit and frank discussion of sexual development, attitudes, values, preferences and behaviours. They also call for an open discussion and the promotion of safer methods of satisfying sexual needs while protecting against such unwanted outcomes as unplanned pregnancy,

HIV/AIDS and other STDs. In addition, they require deliberate emphasis on building or strengthening the social skills that young people need in order to resist pressures to engage in high-risk activities associated with AIDS and other STDs.

In the face of the devastating AIDS pandemic, and its immediate threat to young people, societies can no longer afford to continue the conspiracy of silence on sexual behaviour and to relegate sex education to casual learning from experience or from equally ill-prepared peers.

[from : WHO/GPA/TCO/PRV/ 945]

On the brink

Around the world millions of streetchildren struggle daily against hunger, poverty, violence and abuse. Now HIV poses another threat to their precarious survival.

AT LEAST 100 MILLION CHILDREN - a population larger than Mexico's - live and work in the streets of cities across the world. Most of them are young teenagers aged between 11 and 14. Streetchildren live in extreme poverty, suffer from malnutrition and poor health and have little or no access to education or health services. They are victims of exploitation, violence and sexual abuse, and their living conditions put them at great risk for HIV and other sexually - transmitted diseases. Few have the means to protect themselves.

The overwhelming majority of streetchildren are found in the teeming cities of the developing world - **Bombay**, Rio de Janeiro, Lima, Nairobi, Manila and have substantial populations of streetchildren. Around 80% are children on the streets who work in the streets but live with their families, for whom they are an important source of income. The rest are known as children of the streets - they have no other home, or maintain only tenuous links with their families.

"The accepted definition of streetkids is changing," says Marilyn Rocky of Childhope US, an international organisation working with streetchildren." In the old days a streetchild meant a child totally abandoned. In the past 20 years, enormous numbers of children and young people have come to the streets to work. These are the children of the urban poor and they reflect the rural to urban migration. Many, many millions of people left the countryside to work in the cities." Famine and war are also major reasons why children end up separated from their families and on the streets.

The epidemic of AIDS in Africa is adding to the problem - as thousands of children orphaned by AIDS migrate to the cities ot survive. "We believe we're seeing in Africa the first AIDS orphans, the vanguard, arriving on the streets," says Peter Dalglish of Street Kids International, a Canada based voluntary organisation. "We're terrified that there will be many others. Governments, NGOs and aid agencies must work together on this. How will we provide service for the expected army of destitude AIDS orphans, numbering hundreds of thousands, who may end up on the streets?"

Streetchildren are not just a Third World phenomenon; pockets of poverty and homelessness in Western cities have led to increasing numbers of streetchildren. In the US alone, there are more than a million streetkids, And the collapse of communism in Eastern Europe has thrown thousands more into the streets.

"In Romania, there are hundreds of children living in and around the railway station in Bucharest, some of them as young as four or five," says Marilyn Rocky. "And there are growing numbers of streetchildren in Bulgaria. Albania and Russia. For many of these, prostitution is a strong survival strategy because it can bring in hard currency."

Nick Fenton of Childhope UK says sometimes children take to the streets for affirmative reasons; "If there's violence in the family, a child can escape it by running away to the streets. Living on the streets offers a certain kind of freedom, the freedom to be gay, perhaps, or to escape sexual abuse."

Street Survival

For streetchildren, survival is a constant struggle. Many earn a miserable living selling gum or cigarettes, shining shoes, washing cars or doing odd labouring jobs. Others scavenge on rubbish tips, steal, deal drugs or sell their bodies - sometimes just for a meal or a bed for the night. In the Philippines, an estimated 30% of Manila's 50,000 to 75,000 streetchildren are involved in prostitution.

"Because of the kinds of work they do, streetchikldren throw themselves open to violence, sexual abuse and exploitation and exposure to STDs and AIDS, " says Marilyn Rocky.

HIV is a growing threat to streetkids everywhere. Although some children inject drugs, and risk infection by sharing needles, the overwhelming majority of streetkids are at risk through sexual transmission. Prostitution is an obvious risk, since streetkids are unlikely to be able to insist on clients using condoms.

Because children on the street lead such a precarious existence, they rely on each other for support and protection. Many of them also have sex-heterosexual and homosexual - with each other for comfort, and in some cases as a way of establishing superiority.

"Streetchildren generally start sex very young", says Kate Ewart Biggs of Childhope UK, "A lot of them have been sexually abused before they became streetkids. A lot use sex for survival, and a lot have sex

amongst themselves, mainly because it's the only affection they can get."

But comfort sex can be risky business. "Most streetchildren become infected with HIV from having sex with each other," says Ana Filgueiras of SOS Crianca in Brazil, where an estimated 8.5% of streetchildren are infected with HIV.

Many people who work with streetchildren are wary of publicising infection rates in such a vulnerable population. "Statistics showing AIDS and HIV among streetchildren can lead to children becoming even more marginalised and considered as pariahs and disease-carriers," explains Peter Dalglish.

No place for a girl

Streetgirls in particular are vulnerable to sexual abuse - from both streetboys and adult men. A small-scale study in Guatemala reported than 95% of a group of streetgirls had experienced sexual abuse, 34% of them from strangers.

Only about 20% of streetchildren are girls, but it varies greatly from country to country. "It's more acceptable in most societies to let boys run wild than girls," says Dalglish. "But there are more girls than we see - they are just hidden." Girls are also more likely to end up in brothels, or in domestic labour, than boys.

But the proportion of girls on the street is increasing in Africa with the impact of AIDS. "Four years ago, in Lusaka," adds Dalglish, "the average age of the streetchildren was 14, and 95% of them were male. Today, the average age has dropped to 10, and about 20% are female."

Young girls who engage in sexual activity are very vulnerable to infection. "They're much more at risk from HIV/AIDS and other STDs." says Ewart Biggs. "They run a greater risk of lesions because their vaginas are smaller." Recent research also indicates that the immature genital tract of young girls is much more permeable to the virus than the fully developed vaginal wall of adult women.

Streetgirls are also at great risk of becoming pregnant and having to raise a child on the street. "You can have whole families of streetchildren," says Nick Fenton, "three generations living together." To escape this fate, many turn to dangerous and unsanitary illegal abortions, or try to induce miscarriages.

"To force a miscarriage, a pregnant streetgirl will stand up against a

wall while other kids kick her stomach," says Ana Filgueiras. "The health consequences can be terrible."

For many streetgirls, fear of pregnancy is a strong motive for using condoms - which has the additional advantage of preventing HIV and STD transmission. But another frequent alternative is anal sex, which is widely used as contraception in the streets, and carries an even greater HIV risk than vaginal sex if no condom is used.

One of the major problems in trying to eudcate streetchildren about AIDS and HIV is that even when they are informed about the risks, streetchildren will not necessarily protect themselves.

"Streetchildren experience low self-esteem." says Kate Ewart Biggs. "and have a fatalistic attitude - 'I'll live and die on the streets' - many streetchildren don't think they'll survive past the age of 20."

The high level of drug use in the streets is a further obstacle to prevention - children who are high on alcohol or drugs are less likely to avoid the risk of HIV infection.

Inhaling drugs - glue in particular is endemic among streetkids. Glue is frequently used to stave off hunger pangs, and is much cheaper than food. And glue also has devastating effects on children - in stunts growth, causes lung damage, and irreversible brain and kidney damage, increases malnourishment and generally weakens.

Violence : a daily reality

The dangers of life on the streets are much more immediate than the long-term threat of AIDS. "For most streetkids who survive on a day-to-day basis the idea of a virus which may kill them seven years from now is a bizarre and remote one," says Peter Dalglish.

Throughout Latin America, streetchildren are the targets of death squads out to "clean the streets", often with popular support. In Brazil, hundreds of children are killed each year by squads of off-duty military police and self-appointed vigilantes; in Guatemala, uniformed police and private security firms have beaten, tortured and killed streetchildren. Street educators have also been targeted.

Violence towards streetchildren and police harassment are not limited to Latin America. As Peter Dalglish points out, "Violence is endemic and part of life for streetkids - it's hard to find a child who hasn't been beaten by an adult. And in many countries, members of the police basically use streetkids as another source of revenue, extorting money

from them and ill-treating them."

Despite the odds, street educators sometimes manage to get the message through. Karate Kids, a video about AIDS and health for streetchildren developed by Street Kids International, has been very successful and translated into 17 languages. "We use solidarity among streetkids to teach them to protect themselves," explains Peter Dalglish. "We tell them to use condoms and to be careful to protect their friends."

A shortage of condoms

Karate Kids has led to a huge increase in condom requests from streetchildren. But, says Peter Dalglish, this demand has not been met because of lack of funds. "There is reluctance on the part of donors to provide condoms to young children," he says.

Even when condoms are available, they may not be suitable for children because they are too big. "Some NGOs have asked us to find out if there are any producers of smaller-size condoms," says Dr. Mariella Baldo of the World Health Organization's Global Programme on AIDS, "but there aren't, because it isn't a lucrative market. So that's a need of streetkids which is not answered.

Many agencies dealing with streetchildren in developing countries are run by religious organisations, often linked to the Catholic chruch. "We are concerned that the religious agenda can affect the way the organisation responds to the needs of kids." says Dalglish. "Most religious organisations are very reluctant to talk about sexuality, sexual abuse, sexual identity, HIV transmission, safe sex, contraception, masturbation and issues considered to be 'women's issues' - all of which concern streetchildren directly."

A grim future?

As the AIDS pandemic continues to grow throughout the world, the prospects for streetchildren are grim. In many developing countries, the economic conditions are worsening, which means that more and more children are being forced onto the streets.

"People who want to eradicate child labour don't understand that it's not possible," says Marilyn Rocky. "For many families, the money that a child can earn can mean the difference between survival and starvation."

Better targeting of AIDS education, what Peter Dalglish calls "a concerted effort to reach kids on their own terms" could make a difference, if service

Fighting for survival

Bombay : Every year, thousands of children come to Bombay in search of a better life after escaping deprivation or abuse at home. Most of them become part of Bombay's estimated, 30,000 streetchildren. Nine-tenths of the streetkids are boys - most girls are placed in institutions, or end up working as domestic servants or as child prostitutes from an early age. Streetkids with drugs addiction or HIV infection problems can turn to Support, an outreach organisation based in Bombay's main railway station. Social workers - known as didis, or big sisters and streetchildren turned peer educators are on hand to help.

"The first rule is to accept that streetkids make their own decisions," says Sujata Ganega of support, explaining the success of his group. "They've made the most momentous decision of all at a very early age, to renounce the security, however flawed it may have been, of a home or a family. "They've fought for survival and held their own against a hostile world," he adds. "We can't presume to tell them what we think is right for them; our job is simply to provide them with better alternatives." These range from detoxification opportunities to training for employment - but Support only deals with children over 14.

Drug use is a serious problem, and Support provides streetkids with bleach to clean their needles. The organisation also works with committed doctors with an open approach to the children's needs for sex and AIDS education. "The boys usually have no idea about the inner workings of their own body, let alone those of a woman," says Ganega. "The doctor teaches them a respect for the sexual bond and for their partner, talks to them openly about masturbation and homosexuality."

"Many of these boys were sexually abused; now they protect the younger ones," adds Sangeeta, one of Support's didis. Support also runs a sexually - transmitted diseases clinic a couple of evenings a week, and teaches boys about condom use.

There are no estimates for the extent of HIV infection in a population as mobile and marginal as Bombay's streetkids. Support does not offer screening for the virus, unless a boy specifically requests it; Abdul, a peer educator, only knows of three or four cases in the 300 or so boys he deals with. But in a city where up to a third of prostitutes are infected and where injecting drug use exists in the streets, they are probably the tip of the iceberg. / Bachi J. Karkaria.

World AIDS : Jan '94.

providers and donors are willing to invest in streetchildren. But the basic needs of the children are much greater. "I believe the only concrete thing to do for this population is to engage all agencies to provide housing, food, education to the children so that they can have a stable environment," says Ana Filgueiras.

"AIDS is not a stand-alone issue," concurs Marilyn Rocky. "I see HIV as an inevitable problem that needs a great deal of work. We've got to get to the kids at a time when you can teach them self-esteem and self-worth. This is a population on the brink." **Laurence Zavriew and Neil McKenna.** from World AIDS - Jan 1994

A cycle of violence and despair

"How can we reduce exposure to the invisible menace of HIV among young people who face much more concrete threats every day?" asks Ana Gilgueiras, Director of SOS Crianca which works with some of Rio de Janeiro's 1,500 full-time streetchildren.

"In Brazil, streetkids live in a universe dominated by the need for instant gratification," says Filgueiras. "They have no security, no sense of the future. Food and sex are needs which must be answered as soon as possible. And they equate being desired with being loved."

None of the children Filgueiras works with have any contact with their families. "The majority of them leave their families because they were abused at home," she says, "the girls usually because of sexual abuse, the boys because of violence."

But the cycle of violence and abuse continues on the streets.

Streetchildren in Brazil's large cities are regularly murdered. "In the last year, around 450 kids have been killed by death squads in Brazil, mainly in Rio and Sao Paulo," says Filgueiras. "Eight children we worked with were killed in Candelaria Square in Rio, shot with explosive bullets, the kind the the military police use."

Organisations and individuals working with streetchildren are also at risk, says Filgueiras. "My street educators have received direct threats and intimidation - we've had to stop working at night because of this." Many of the children SOS Crianca work with are lesbian or gay. Some are transvestites, known as gayrotas. The sexual orientation of streetchildren is all too often a taboo subject, says Ana Filgueiras. "All over the world, when I go to conferences, when people talk about street youth, they never mention that they can be gay or lesbian." "A lot of

kids have sex with others of the same gender but don't link their homosexual practice with homosexual identity," she says, "When they play the active, insertive role they identify as macho. They only identify as homosexual when they play the passive, receptive role." Sex - heterosexual and homosexual - between streetchildren is, according to Filgueiras, the main route of HIV transmission. "Young girls working in prostitution are more likely to use condoms than the girls in the street," she says. "First of all, they know they must take care of their bodies for their work, and they also have a safe place to keep condoms. The kids on the street don't."

And just as important as condoms is self-esteem, according to Ana Filgueiras. "Streetkids often lack the self-worth and the self-love they need to help protect themselves. / Panos.

World AIDS : Jan' 94.

"Many widows face problems in claiming their rights to property when the husband dies. Their loss worsens the plight of children left behind."

Esnath Kalyati, Ministry of Community Services, Malawi.

"If, with patient care, I can keep an AIDS-infected parent alive for six months, I prevent the children being orphaned sooner than necessary. Let them see their parents die in dignity. That will help them."

Ursula Sharpe, St. Joseph's Hospital, Uganda.

At Risk & Abandoned : Street Children, AIDS & Human Rights

- Steven Malamud

"Everytime a child dies of AIDS, human rights are violated." from Children AIDS : An Imminant Calamity, UNICEF

"The greatest killer of street children is our own indifference."

- Bruce Harris.

Since its inception in the late 1960s, Convenant House has provided outreach and residentially-based rehabilitation for street children, homeless and runaway children in the Americas. In 1990, after 13-years old Nahaman Carmona Lopez was kicked to death by four uniformed members of the Guatermalan National Police, Convenant House of Latin America joined forces with Amnesty International and other human rights organizations to try and stop the murder of street children by authorities in Latin America. We have established Legal Aid Offices for Street Children in Guatemala and Honduras, and have initiated more than 191 lawsuits against officials, resulting so far only in the conviction of Nahaman's murderers. In the last 12 months, 14 Guatemalan street children and youth were murdered some as young as just 10 years old.Most were shot to death at close range by uniformed municipal and private policemen.

In the last year, we burried two other street children whose lives were taken by another killer in the streets - HIV/AIDS. Two other boys living in one of our group homes in Mexico are presently in their terminal stages. Jose was raped by an HIV positive assailant, Manuel contracted HIV while selling his body to survive. Although we know of many more boys and girls who are HIV-positive and living on the streets, the Mexican government has stopped testing street children for HIV, claiming they do not have the resources to care for them.

Covenant House street educators include AIDS education as a part of their daily outreach efforts. When a child decides to leave the streets and come to a Convenant House Crisis Center, they receive both HIV/AIDS education and counselling. Convenant House Crisis Centers provide not only education and counselling, but also a place where these children can find peer support and make friends. Sometimes this peer support - the knowledge that they are not alone - is the only thing that keeps these kids alive.

A 1991 study of 143 street children between the ages of seven and seventeen in Guatemala City conducted by the Center of Orientation, Diagnosis, and Treatment of Sexually Transmitted Diseases and Covenant House of Latin America reported :

- None of the children used contraceptives
- About 70 percent had one to two partners pay day : 4.2 percent had three to four partners per day : and 25.1 percent (92.3 percent of whom were girls) reported more than four partners per day.
- 93 percent referred to having had previous cases of sexually transmitted diseases (STD). At the time of the survey, the children presented actual case of genital herpes (78.3 percent), gonorrhea (46.65 percent); papilomatosis (27.3 percent); vaginal trichomoniasis (13.29 percent); chancroids (11.7 percent); and scabies (69.9 percent).
- 100 percent of the children used solvents, such as glue, as their drug of choice. 96.5 percent use drugs daily, 3.5 percent use drugs weekly.
- 100 percent of children interviewed had been sexually abused. Among them, more than 53 percent reported they were abused by family members; 5.95 percent were abused by friends; 2.7 percent by neighbours; and 46 percent by people they didn't know.
- 64.1 percent of the children reported that the first person with whom tney had sexual relations was their father or mother; 10.2 percent, with an uncle or aunt; 10.2 percent, with a brother or sister; 2.6 percent, with a friend; 5.1 percent, with a boyfriend or girlfriend; and 7.7 percent, with someone in another category.

Forced to grapple with how best to care for the many street children who will come to us infected in the coming years, we have been struck by the similarity in the experience of street children who are murdered and those who are taken by AIDS. They are both victims of abuse and abandonment by those who are meant to protect them- their families, their governments, and their communities, who can not or will not find the resources to save their children.

We must put HIV/AIDS among street children on the political agenda throughout the developing world. Street children, whether they are

murdered by police or taken by AIDS, are victims of economic violence, what some would passively call `poverty'. They are children of the poorest of the poor, whose numbers and level of poverty has only increased in recent years - as the rich have gotten richer. Abuse and abandonment make street children leave their homes and take to the streets. Abuse and abandonment also make them die there.

Our strategy in trying to stop the murder of street children has been to bring international attention to the problem.

By using the media and mobilizing Amnesty International members worldwide, we hope to shame the governments into stopping the violence. Whether this strategy is truly effective still needs to be seen. What is clear is that governments act only because we have raised the social problem to the level of politics. It is not because they love children.

The U.N. Convention on the rights of the Child is supposed to guarantee that :

- the basic necessities of the child will be satisfied;
- the child will be protected against cruetly and exploitation;
- parents will be able to properly provide, according to their posibilities, the necessitites for their children;
- special care will be given to children who are expecially vlunerable, including those who have been separated from their families for whatever reason;
- children will be given the appropriate opportunities to take their place in society, and give their opinion about anything that concerns them.

In Guatemala, the sixth nation to ratify and adopt as law the provisions of the United Nations Convention on the Rights of the Child, 120 children die each day of diarrhea, a preventable and curable illness. Eighty-four percent of the inhabitants live in poverty - 70 percent in extreme poverty. Most children do not attend school very long, if at all because they must work to help the family survive. There is no funding for AIDS education or treatment services. There is no government subsidized HIV-testing and the public is not pushing for it because they believe AIDS is a 'homosexual disease; because AIDS education can seem like a luxury if you have no food. The situation is worse in Honduras - nearly 80 percent of the population lives in extreme poverty, and the

country suffers the highest rate of HIV/AIDS infection in Latin America. As resource - rich citizens of the global village, we must use the privilege that we have to assure that the rights of all of our neighbours, in our own countries and throughout the world, are guaranteed. (The U.S. has still not ratified and adopted the provisions of the Convention as law.)

(from :AIDS LINK # 31 JAN/FEB 95)

"I have seen children declining in their mother's arms, weakening as their mother weakened, starting to die as she died."

Ursula Sharpe, St. Joseph's Hospital, Uganda.

"Even infected couples still need to have children because marriage without children is nonsense in the conception of many Africans."

Aimee Muadi, SWAA, Zaire

Children should be maintained within the family entity. If there are no kin, they should stay in the family home and be helped by neighbours and carers.

"Whole communities have been turned into big 'orphanages,' with limited resources, weakened structures, poor oganisations, and diminishing motivation."

Moses Ddombo, World Vision, Uganda.

PERSPECTIVES

Perspective from a Parent

Elizabeth Glaser
Cofounder, Pediatric AIDS Foundation

I have been infected with HIV since 1981. In 1988. I lost my daughter to AIDS, My son, who is 9, has been infected since birth. I am in the middle of this epidemic.

As the 1990s move along my greatest concern is that we don't become complacent about HIV, that we keep fighting as hard as we can to find different and complicated answers. That we remember the urgency of families like mine - families struggling to keep their hope alive.

Each year we have new information. This book reminds all of us that we must stay on the cutting edge of this devastating epidemic.

The information here will help children and families around the country and the world. But, these facts are only partially helpful. We must also know that people, our doctors, our government, our neighbours, our families, care. That along with medicine and treatment comes compassionand love. Then hope is within reach of us all.

(From : Pediatric AIDS, Pizzo, Wilfert)

Perspective from a Child

Hydeia Broadbent
Las Vegas, Nevada

My life has been a little different than other children that I have known. I was born with AIDS. Some people think it's not okay to have AIDS. And some people know that it's okay to have AIDS because you are still a normal person. I would like to tell you what is important. I would also like to tell you what has been the best parts about living with AIDS and what are the scariest parts.

WHAT IS IMPORTANT

Friends and family are important especially when you have a deadly disease. I am very important to my mommy and daddy and all the rest of the people that know that I have AIDS. Some kids don't understand that if they play with me they can not get AIDS. Some kids even know more than their parents. When I have a new friend and she or he finds out I have AIDS and they do not know a lot about it. I will help them understand. My life is fun because I have a big sister who understands a lot. I also have two very special friends. One helps me a lot when I need her. She is my social worker. The other one acts like a kid even though she is grown. She is a volunteer. But my very, very special friend is my mom. She helps me when I need her and I help her when she needs me. Even though I might die before her I will never stop loving her and she will never stop loving me.

THE BEST PART ABOUT LIVING WITH AIDS

AIDS is in a way good. Because some people learn alot like I did. I learned to help other people deal with it by explaining to them what it really is. Actually many people do not know a lot about what. AIDS is, and it is in a way good for me because I can help people learn and I can educate people. When I educate people I feel happy because they listen to me because an 8 year old may know more than a 30 year-old person. It is good to have a child that's been living with this disease all their life to tell people what is safe and what is not safe. Because no one that's not lived with AIDS can tell other people what it is really like. And I get more and more friends and a whole lot of love. So AIDS is not so bad at all.

THE SCARIEST PART ABOUT LIVING WITH AIDS

There are times that are scary though. Getting shots and having new procedures done is frightening. I don't look forward to those times. Sometimes when I am sick and in the hospital I get worried about getting sicker. If I got sicker I would die. You could die from AIDS. When you do your mommy and daddy will be very sad because they wouldn't have a child any more. But you will always be remembered. My mommy and daddy would always think of me and they will keep all my stuff in my room like my toys and pictures and my books. I always want them to remember me saying "I love you" They will always remember me sucking my thumb and wanting me to "STOP".

WHAT I WANT THE WORLD TO KNOW

I would like everyone to like everyone and respect others. This is very important. Many people may be sick and not feel good and by not being nce to them you might hurt their feelings. No one likes it very much when someone hurts their feelings.
I also don't think it is very nice when people tease you. People have teased me because of my catheter and my backpack. I like when people treat me nice, and I don't like when people tease me. It is not funny. Having AIDS is not fun, and I want the world to know that sometimes it makes you not feel very good and not want to do very much. We should not be teased about that either.

THE FRIENDS I ONCE KNEW

I never worry about dying anymore. I used to worry about dying but I don't anymore. The reason I don't worry anymore is because I know so many children with AIDS who have died, and I know they are all in Heaven. I often wonder what Heaven is like. I think there is angels all over, baby angels and grown up angels. We can always remember our friends who are in Heaven. They are standing by us. When I get there, Cory and Ezra and Dougie and Blayne and other children I once knew will be there for me to play with. I think I will be happy in Heaven.
This is not like the other poems I have written because the others help educate people. This one tells you how I feel. Thank you for listening. The End.

(From : Paediatric AIDS, Pizzo, Wilfert)

When You Have AIDS

Hi, My name is Tanya. I have AIDS and everyone is different than I am. It feels terrible to have AIDS because my tummy hurts alot and because, if my friends find out they wouldn't want to play with me. When I told the kids at school I had AIDS they made fun of me. I told them by accident. Now I want to run away from school. I wish I were not an AIDS patient. I wish I did not have to take medicine.

When you have AIDS you feel bad alot even when you don't have a high fever. I am different from everyone. AIDS patients hurt alot. It is going to take a long time to get rid of (my) AIDS and by the time I do I will be too old to live a long while. I'll only live a little while. In the meantime, my friends only understand I have a catheter. They don't understand my AIDS. I wish they would understand. I wish they would know the truth. I wish they would be my friends forever. But now I am learning to live with my. AIDS. If you have AIDS, be proud of who you are. We have to stick together.

Tanya, age 6

I Often Wonder. . .

I wonder why they can't find a cure for HIV. If they can't find a cure then I can get real sick and get AIDS. I wonder hat that would be like. I think that would be hard. I might get real, real sick and die. That would be scary. The hardest part about dying would be missing my family. But I would see them in heaven one day and I know they would love me forever.

I wonder what heaven is like. But when I get to heaven I won't have to worry about anything. Doctors or medicine or pain. I think heaven is happy, pretty, and friendly. Lots of yellow, pinks, and purple.

I hope they find a cure so I won't still have to worry about HIV while I am in heaven.

Rachael, age 8

Me and My Friends

It is very hard to make friends and to lose them. This is what I remember most about each one of the kids I have gotten to know and love. Jeff loved rude dog. He was always nice. Michelle was a cute baby and she always kept Ernie on her leg. Cory was funny, real nice and smiled alot. Ezra was also cute, he had a beautiful face. Aubrey always knew what she wanted and was funny too.
All of these friends had AIDS. They fought hand to live. Now when I think of them I feel sad because they had a chance to live but they died and I knew them all real well. I think they are all in heaven together now, having a party or something. It makes me feel better to think of them all together because that makes it all seem less scary.

Joey, age 11

Perspective from the Health Care Community

Margaret C. Heagarty
Prof. of Pediatrics.

The first child with AIDS was admitted to the Harlem Hospital, a New York City municipal hospital located in an urban disadvantaged community more than 10 years ago. At the time those of us involved in the struggle to provide health care for the poor children of this community were mercifully unaware of what was to follow. We did not foresee that we would be forced to become scientific and clinical pioneers in one of the most serious epidemics in children of this century, nor did we understand how difficult it would be to get the larger, more affluent community interested and concerned about these children and their families.
We, like our young patients and thier families, faced this epidemic unprepared. But we had experience in the difficulties of providing health care for the poor, for all health professionals concerned with children, no matter where we are, cope daily with the results of the absence of a national, universal, and comprehensive system of health care. All of us caring for the poor, by necessity, have long since become ingenious,

crafty, and frustrated manipulators of a health care system that does not meet the needs of these children.

Now more than 10 years later and with the advantage of hindsight, several things become clear. First, it is probably just as well that we did not recognize early the scope of the epidemic and the complexity of care for children and families with AIDS. If we had, we all might have given up before we started. Because children with HIV infection are for the most part from the most disadvantaged families in our communities, the provision of medical care, complicated as it is, in many ways is the least of the problems. So we who provide the care have had to try, with precious little outside support, to find ways to help these children and their families deal not only with the emotional consequences of a serious, chronic, and ultimately lethal disease but also with the realities of poverty and often of drug addiction.

Second, from the vantage of more than 10 years the process of the development of care of children with this disease resembles a bit of a muddle, that is an evolutionary process invented by human beings struggling to find answers, not only answers in the laboratory but also at the bedside. And in that muddle, that human process, lies whatever comfort and satisfaction there is to be found for those engaged in the care of children with AIDS. Over the years, care of these children has demanded that we use every ounce of imagination, energy, creativity, not to say moral indignation, we possess. We have sometimes failed - many children have died despite our best efforts - but those engaged in this care will, I think, agree that when we have done our best, have used all we have, then we are most nearly human and have come closest to the ideals that led us to the health care professions.

(From : Pediatric AIDS, Pizzo, Wilfert)

Perspective from the Federal Government

Antonia C. Novello
Former United States Surgeon General

It began, like so many epidemics, with a few isolated cases, a whisper that caught the ear of only a few in medical research. Today, that whisper has become a roar heard around the world. AIDS is now the epidemic of our generation, invading our lives in ways we never imagined - testing our scientific knowledge, probing our private values, and sapping our strength. AIDS no longer attracts our attention - it commands it.

In this second decade of AIDS, HIV infection continues to spread. despite the fact that most people know how to prevent it. Too many people continue to take chances, and too many of them become infected. Adolescents are a special concern, More and more adolescents are becoming infected with HIV.

As parents we cannot stand idly by while AIDS threatens our children's future. It is painful to think about the temptations and dangers adolescents face every day. But sex and drugs are facts of life; we can no more ignore them than death itself. We must prepare our children to face the realities of AIDS in their lives, The urgency for action stems from the growing scope of the problem.

Although adolescents aged 13-19 comprise less than 1% of total AIDS cases in the United States reported through March 1993. individuals aged 13-29 make up more than 20% of total AIDS cases. Given the period of roughly 10 years between infection with HIV and tghe onset of symptoms, it can be assumed that many of these individuals were infected as adolescents. This distressing growth of adolescent AIDS may herald the future profile of HIV infection in the general population. To respond to this pressing challenge, we must come to grips with the fact that the teenagers of today are not the teenagers we were back in the hazy days before AIDS, condoms and MTV.

If HIV/AIDS prevention in adolescence is truly our number one priority, it can no longer be conducted in a didactic or moralistic vacuum. Books and sermons are simply not enough in today's imperiled world.

Simply put, we can no longer afford to allow debates regarding the appropriateness of teenage sexuality to paralyze our efforts to address the spread of HIV infection among our adolescent population.

If we are to respond to the challenge of HIV/AIDS, we must acknowledge that adolescents are not adequately served by programs designed for adults or children. A comprehensive and well integrated system of care for HIV-infected adolescents will be most effective if the services provided are family centered, community based, culturally sensitive, and developmentally appropriate. This comprehensive strategy must integrate education, testing, counseling, and preventive and treatment services under one roof.

If latex condoms are the preferred and sanctioned mode of such prevention in the community, then the mechanism by which they are made available must respect local concerns and, in addition, address the shared responsibility of protection by each partner.

Above all, it must reflect a continuum of care - with case management as a focal point. It should also include a core set of services: pharmacy and laboratory, health guidance, vocational training, job counselling, legal services, food and nutritional assistance, shelter, parenting education, and where needed, child care.

All these offerings should be augmented by services relevant to HIV infected youth: specialized education, counseling and testing, mental health care, substance abuse treatment, education services, basic support services (including housing and transportation), social and legal services, and access to clinical research and appropriate treatment protocols.

If we are to halt the spread of HIV/AIDS in adolescents, we all must advocate the urgent health needs of adolescents and redouble our efforts to ensure that prejudice, complacency, isolated agendas, and political expediency do not deter us from dealing with the reality of teenagers and AIDS.

Ultimately, the success or failure of our effort to address HIV infection in adolescents will depend less on the precise technical components of our initiatives than on the political will needed to carry them out.

(From : Pediatric AIDS, Pizzo, Wilfert)

FACTS

75% of AIDS occurs in the key productive age-group 20-49 (Malawi)

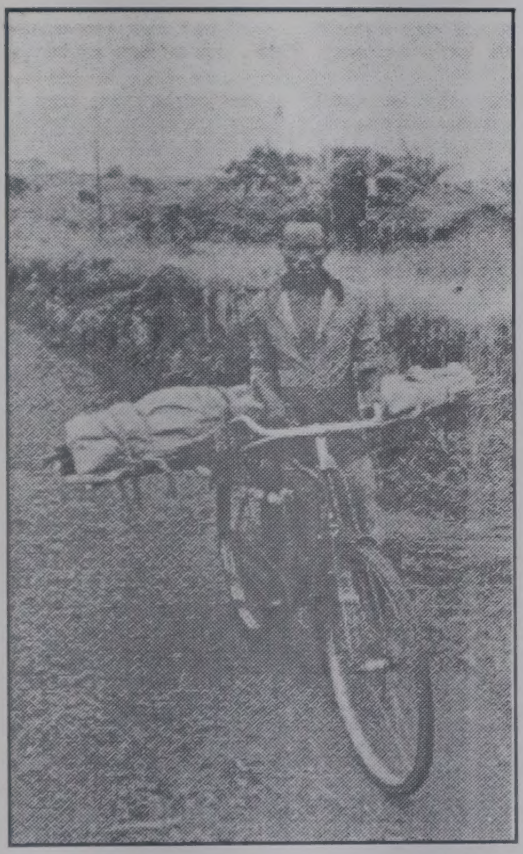
10 million AIDS orphans by year 2000, 90% in Africa (WHO)

Most children of HIV-infected mothers are orphaned within 5-10 years (WHO)

Age of average AIDS mother at time of death : 33 (Zambia)

Infant and child deaths from AIDS may increase child mortality rates by 50% in Africa during the 1990s (WHO)

"A young man from Uganda carrying
the dead body of his son who died of AIDS "



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